

QUALITY IN POSTGRADUATE RESEARCH: MANAGING THE NEW AGENDA

Proceedings of the 1998 Quality in Postgraduate Research Conference
Adelaide
April 23-24

Edited by
Margaret Kiley and Gerry Mullins

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Papers, other than keynote addresses and panel presentations have been refereed in full, and anonymously by at least two referees, external to the Editors.

The conference participants, presenters and authors reflect the international nature of the conference as does. This is particularly the case with the South African conference which is conducted in alternate years.

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QUALITY IN POSTGRADUATE RESEARCH: THE CHANGING AGENDA

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Universities are facing dramatic changes as they approach the 21st century: restricted resources and competitive marketing; demands for increased accountability; the impact of information and communications technology; the changing demands of professional education; internationalisation. It is not surprising that postgraduate supervisors and their students are experiencing similar pressures and tensions.

Several conferences on postgraduate education in the '90s in Australia, Thailand and South Africa serve as markers of this process (Figure 1). Their agendas indicate the extent to which we are dealing with these pressures.

Conference	Title	Date
Canberra Symposium	<i>Quality in PhD Education</i>	July 1992
La Trobe Conference	<i>Postgraduate Supervision</i>	July 1993
Adelaide Conference	<i>Quality in Postgraduate Research: Making It Happen</i>	April 1994
Adelaide Conference	<i>Quality in Postgraduate Research: Is It Happening?</i>	April 1996
New England Conference	<i>Which Way for Professional Doctorates?</i>	October 1996
Adelaide Conference	<i>Quality in Postgraduate Research: Managing the new agenda</i>	April 1998

Figure 1: Recent Australian Conferences on Postgraduate Education

THE QUALITY AGENDA

The Canberra Symposium, *Quality in PhD Education* (Cullen, 1993) sought to conceptualise the idea of 'quality' in the PhD. In the process participants raised a number of the issues which were to feature in the quality debate over the next five years. The symposium discussed Phillips' (1992) UK work on different expectations of supervisors and students and the implications for the creation of an environment conducive to producing high quality PhDs; the issues of a Graduate School and of coursework in PhDs (Holdaway, 1993); departmental

practices which would reduce barriers to women's participation in postgraduate education (Moses, 1990); the professional development of academic staff in PhD supervision (Powles, 1993); and the needs of overseas students (Ballard & Clanchy, 1993).

The La Trobe University conference, *Postgraduate Supervision*, had as its organising principle a list of thirteen strategies (Figure 2) for successful Research Higher Degree supervision at the Departmental level (from Parry & Haydon, 1994). This list is still as good a checklist of the postgraduate education agenda as any. However, discussion at the La Trobe conference dealt with postgraduate supervision at a 1:1, supervisor/student level. The thirteen points were discussed as if the responsibility lay only with individual supervisors, and not with Departments or Faculties.

1. Recruiting and Selecting Students
2. Allocating Supervisors
3. Providing Guidelines
4. Selecting the Topic
5. Giving Advice about How To Do Research
6. Meeting with Students
7. Helping Students to Write
8. Maintaining a Working Relationship
9. Checking Progress
10. Introducing Students to Scholarly Networks
11. Ensuring Acceptability of the Thesis
12. Selecting Examiners
13. Providing Career Support

**Figure 2: Strategies for Research Supervision at Departmental Level
(Parry & Haydon, 1994)**

By the time of the 1994 Adelaide Conference the Quality Reviews (Harman, 1997) were in full swing—hence the title *Quality in Postgraduate research: Making It Happen*. The concern of participants was to benchmark against best practice in other universities. After 1994, the assumption was that most institutions would have in place policies and procedures to support postgraduate training at an institutional level; Codes of Practice and Boards of Graduate Studies with policy-making powers and responsibility for grievance procedures; annual and/or exit reviews; professional development programs for supervisors and student support services. (As examples, Bickerton (1997) describes the approach at University of Western Sydney; Loxton (1997) that at Macquarie University.)

However, the real challenge was to carry quality assurance processes through to a departmental level. There was no doubt that excellent supervision did take place, but this was the result of the fortuitous coming together of good supervisors and suitable students. There were few processes in place to ensure that all postgraduate students in a department, not just those allocated to the best supervisors, had a quality experience. The 1996 Adelaide Conference: *Quality in Postgraduate Research: Is it happening?* had as its focus the development of quality assurance processes at the level of Faculties and Departments. However, apart from the keynote addresses on the conference theme, there was a wealth of papers on institution-wide student support and supervisor training or quality management, but very little on how these processes and systems operate effectively at the departmental level.

Two conferences in 1997 provide a perspective on how countries, other than Australia (Thailand and South Africa) are dealing with some of the issues discussed above.

In a keynote paper to the Chiang Mai Symposium, *A Blueprint for Better Graduate Studies*, Ketudat (1997) lists several strategies already underway to develop postgraduate education:

- Consortia of centres of excellence in Science and Technology closely linked with industry;
- The Royal Golden Jubilee Project: support for 5,000 PhD candidates over the next 15 years;
- The Thailand Research Fund Scholars;
- Specialised programs related to private sector development in commerce and industry.

In short, the emphasis is on long- and short-term strategic planning, especially as regards funding, and co-operation among universities and between universities and industry. Many of the papers at the Symposium were case studies of successful quality assurance processes at Western and Asian universities which served as benchmarks for the Thai hosts.

A common conception held in South Africa before the Cape Town Conference, *The Postgraduate Experience: Approach, Access and Management*, was that South African institutions were well behind UK and Australia universities in their approach to postgraduate education. A significant result of international participation in the conference was to help South African delegates position themselves more accurately by reference to what is happening in other countries. Many problems are not unique to South Africa, and have been addressed successfully in Australia and the UK over the last few years for example quality assurance reviews, induction programs for staff and students; others are still hotly contested for example, the evaluation of supervision, performance-based funding. South African (and Thai) institutions and academics are in a position to learn from others and to make their own contribution to the debates.

The question of whether to focus efforts on some areas of an institution at the cost of others is one aspect of strategic approaches to research and postgraduate education which causes considerable difficulty for academics working in a developing higher education context. In the Australian context, there is now the recognition that no university can be outstanding in every discipline, and that it makes sense to concentrate resources on those areas of excellence which have the best chance of achieving international recognition. In many developing countries the need to maintain social and political cohesion and to avoid any appearance of elitism makes this approach much more problematic. The consequence, however, is that scarce resources may be spread too thinly to make a significant difference to postgraduate research.

THE NEW AGENDA

Julian Clark (1996), a senior executive of a large pharmaceutical firm and a member of the Australian Business Higher Education Round Table, recently argued that postgraduates should have the broad and sophisticated mix of qualities set out in Figure 3.

- Highly developed skills to adapt to new areas of activity
- A reasonably broad practical knowledge
- Familiarity and knowledge of broader literature
- Skills in the scientific method and linkage to the broad context
- Good communication and presentation skills
- Good work practices and collaborative skills
- Experimental design, modelling and statistics
- Information technology and computer literacy
- The ability to use fundamental and technical knowledge to applied systems
- Occupational health and safety, and hazard analysis
- Good manufacturing practice
- Good laboratory practice
- Intellectual property management skills.

Figure 3: Postgraduate skills: a view from industry (Clark, 1996)

Clark's paper caused a great deal of discussion in Australia because it forced academics to confront the question of the purpose of a PhD. There is a set of questions which, typically, we avoid, or on which we assume there to be general agreement. Until we unpack, agree on, or agree to differ on these questions the more practical questions will continue unresolved. These fundamental questions are: Now that many of our graduates will be employed in industry or in the public service, is the PhD too much a training for the academic, rather than the commercial or public life? What is a PhD? What is a PhD for? Who is a PhD for? When is a doctorate not a PhD?

The third Quality in Postgraduate Research Conference took place in Adelaide in April 1998. The conference sought to represent the tension between the traditional values that underpin postgraduate training as we know it, and the pressures that changing institutional, national and global factors are exerting on that model/ideal. It is interesting to note that quality was in the title (a bow to tradition?) but not on the agenda! Once the Australian Commonwealth government abolished the \$72 million incentive fund, the word 'quality' was replaced in the discussion of postgraduate research by words such as: 'internationalisation', 'competitive marketing', 'flexible delivery' and 'performance-based funding'. The theme for the conference was 'Managing the new agenda'. The key question for the conference was: What do we need to do now to ensure the quality of the postgraduate experience in the university of the 21st century? Some of the questions implicit in the theme were:

- What is the new agenda? Who will drive that agenda?
- What are the implications for postgraduate education of the current West Review of higher education?
- How does postgraduate research fit into the push for internationalisation and entrepreneurial development?
- What will the PhD look like in the 21st century?

THE 1998 CONFERENCE

The purpose of the 1998 conference in Adelaide was to address many of these above questions. Since, the conference was held within a week of the West Report (1998) it was inevitable, and indeed expected, that the conference would devote much attention to Chapter 6 of the *Review of Higher Education Financing and Policy*.

The first keynote speaker of the conference, Professor Lauchlan Chipman, Vice-Chancellor of Central Queensland University, was a member of the West Committee and had been invited to address delegates on the implications of the West Review for the postgraduate agenda. Chipman located this discussion within the broader historical context of postgraduate education in Western universities. From the perspective of the West Report he raised the following issues:

- the need to address the cost-benefit issues related to postgraduate research and training in Australia, including drop-out rates and career development;
- the likelihood of increased attention to the quality of postgraduate supervision and its evaluation;
- the need to position Australian postgraduate training within a competitive global market; and
- the underlying implications for postgraduate training of a key feature of the West report, that is, the shift from universities choosing students to students choosing universities.

A feature of the Quality in Postgraduate Research conferences has been the involvement of administrators, supervisors and students in the discussions related to postgraduate research. As a result, Professor David Siddle, Dr Chris Beasley and Mr Robert Jansen, representing these three groups respectively, were invited to respond to Professor Chipman's address.

Another aim of all three Quality in Postgraduate Research conferences has been to examine the difficult issues and to attempt answers to these questions, rather than simply restating problems or rehearsing well established practices.

Two of the panel members, Associate Professor Annette Street and Mr Tom Clark, as representatives of postgraduate supervisors and students respectively, were asked to address the question:

What do you perceive to be the current problems with research degrees and how should be tackle these issues now?

The other two panellists, Professor Barbara Evans and Dr David Liljegren, both Deans of Graduate Studies, were invited to suggest possible answers to the question:

How would you describe the PhD in the year 2005?

Dr Simon Marginson was given the challenging task of summing up the conference and proposing the new agenda for subsequent conferences, a task he discharged with insight and humour.

Over forty presentations were made to the conference and fourteen of these were refereed and approved for publication. These refereed papers are grouped under the broad headings of:

- Managing postgraduate research
- Reconceptualising postgraduate research
- Supporting staff and students

Managing postgraduate research

Ferreira and Dipelou discuss what might be done to manage better within an institutional context, specifically in South Africa. Gerbic, Macauley and

McKnight, and Buckley and Jones look at other dimensions of management and from different angles—Intellectual Property, ethics and library support. These papers signal the advice and assistance increasingly becoming available to students from outside the immediate supervisor-student relationship. Finally, Guthrie and Trembath, and Sekhon and Shannon examine the evaluation of postgraduate education from two perspectives, systemic and institutional. Given the attention to evaluation in other areas of higher education in Australia, for example, student evaluation of undergraduate teaching and performance-based funding of research, it is surprising that a conferences such as this one stimulated so little research on the evaluation of postgraduate education. One for the ‘too hard basket’ perhaps?

Reconceptualising postgraduate research

There are many ways of conceptualising postgraduate research. Love and Street, and Vilkinas suggest analogies for the supervisory process—a problem-solving approach and a management approach respectively—and suggest that the postgraduate experience would be improved if we thought about it more in line with other models. Kiley, Cargill, and Ferroni and Hall take more of a micro-perspective on interacting perceptions of supervisors and students. In the first two cases the focus is on students, as it happens international students, whereas Ferroni and Hall explore a different dimension of the postgraduate experience, that of the supervisor.

Supporting staff and students

As editors we did note that there was much less discussion of literacy support processes at this conference than was evident at the two previous conferences. Does this mean that we are satisfied what we have effective processes in places? However, Scott and White both discuss the writing and editing process, White particularly from the point of view of the supervisor. Webb and Sillitoe continue the theme of supervisor support in their account of supervisor training in a post-1987 university

‘THE TOO HARD BASKET’

As organisers of the conference we recognised that there were topics of significance that had not been fully covered by papers submitted for presentation at the conference. Therefore, we commissioned a series of discussion groups, titled “The Too Hard Basket”. This is also a way of conceptualising the *emerging* agenda for quality in postgraduate research and for future conferences.

There are at least three major items in the ‘Too Hard Basket’:

- assessment of postgraduate students and the evaluation of their supervision,
- the purpose of a PhD, and
- internationalisation.

Assessment and Evaluation

The conference discussed the evaluation of postgraduate education at both the macro-and the micro-level. However, at the micro-level the evaluation of postgraduate supervision continues to be an intractable problem for Australian universities. Universities need to develop a method for the evaluation of postgraduate supervision which is acceptable to staff and students. This demand arises from a number of factors: concerns about the completion rates of postgraduate students; pressures to expand postgraduate numbers; the importance of full-fee paying postgraduate students in university budgets; the inclusion of postgraduate teaching as a criterion for promotion; and the need to satisfy quality assurance reviewers. However, for most, universities the evaluation of supervision is too sensitive and/or difficult a subject for them to arrive at a consensus on a process. This failure leads us to the conviction that the emphasis in evaluation must shift from the evaluation of individual supervisors to the evaluation of the postgraduate experience in the department. Macquarie University (1997) has made some progress in this direction: all postgraduate students in a department are asked a set of questions and summarised results for all students are sent back to all supervisors. The alternative is a shift to evaluation at the systemic level, the preparatory stages of which are described in the paper by Guthrie and Trembath.

At the macro-level there is a similar reluctance by many academics to engage with the issues of performance-based funding and performance indicators. Clearly these are issues which will have enormous impact on postgraduate education but there is little discussion of how they will be dealt with on a day-to-day basis. As long as quality assurance and/or performance-based funding are on the agenda, it is in the interest of all academics and their students that we develop valid and reliable indicators for postgraduate education lest we are saddled with inappropriate and/or impractical ones! To return to the theme of the 1996 conference, quality assurance is too often seen as a process outside the faculty and/or department, not as a process which must permeate all levels of the institution. As a result there is a reluctance to engage in the discussion of many quality assurance issues which are seen as a prerogative of management at the institutional or systemic level. Another result of this attitude is that quality assurance processes may be seen as threatening rather than as developmental. In order to be effective, proponents of a quality assurance approach to postgraduate education need to make their case in all forums of academic discussion, but particularly at the faculty and department levels.

Before this conference there were few published research papers on the assessment of postgraduate theses. Nightingale (1984) in an early attempt to tackle the issue analysed examiners' comments on 58 theses. Two more recent studies (Ballard, 1996; Johnston, 1997) are also analyses of examiners reports. Ballard, in a paper to the 1996 conference, noted that the traditional qualities of a successful thesis—originality, scholarship and advancement of knowledge—are “transformed by the examiners into the less lofty expectations of 'imagination',

'competence' and 'mastery'" (p.2). Johnston (1997) stressed the communications aspect of the examination process, and, like Nightingale, called for a more transparent examination process and for more explicit and detailed consensus about the required standard of a PhD. By the end of the conference assessment was a 'hot' topic being discussed from several perspectives including pedagogy, management, and staff development.

However, assessment is merely one example of the narrow basis of the research underpinning our practice in the postgraduate area by contrast with the wealth of research underpinning that practice when we talk of undergraduate learning and teaching. If one looks at the literature which provides advice to supervisors and/or students on postgraduate research (for example, Moses, 1985; Phillips & Pugh, 1994; Powles, 1988; Zuber-Skerrit, 1992a & b; Cryer, 1996a), there is constant re-citing of a limited body of research (for example, Rudd, 1984, 1985; Becher et al, 1994; Moses, 1990; Parry & Haydon, 1994; Phillips, 1992; Powles, 1989; Cryer 1996b). This point is not made to disagree with the advice given to students and supervisors, but to ask why is it that so much of that advice is based on anecdotal evidence and the reflections of experienced practitioners? We do not have the same quantity and quality of research on how postgraduates learning as has been done by people such as Biggs, Entwistle, Meyer, Ramsden, and Prosser on undergraduate students. Do we need a 'pedagogy' (perhaps 'andragogy' would be more appropriate for postgraduates) of postgraduate learning? What might such a pedagogy look like? How would it differ from what we already know about (undergraduate) student learning? Would we expect to see striking differences in factors that we believe are important in postgraduate education: motivation, disciplinary differences, independence, critical analysis and literary skills? It would be exciting to see future conferences take up these questions.

The Purpose of a PhD

There is a constellation of issues which were discussed at the conference but which require further and extensive discussion over the next few years. These issues include:

- mobility and career development for postgraduate students;
- cooperation and competition for research and research training resources and personnel;
- access and equity vs competitive marketing;
- costs and opportunities for research training.

The issue of student mobility was raised in the West Report and in a paper to the conference by Austin and Kiley (1998). The recent announcement by the ARC of a study of the career paths of PhD students is another aspect of mobility. One dimension of the mobility issue is the tension between encouraging one's best students to broaden their education by moving to another university for postgraduate study and the pressure to develop (exploit?) this resource within

one's own university. Many Australian academics are still confused and uncertain about when they are expected to be co-operative, to share facilities and be supportive across faculty and institutional boundaries and when they are supposed to engage in competition for their share of the market. Unfortunately, competition is usually for funds, resources and student enrolments, and co-operation is too often reserved for the 'soft' areas such as staff development and student support. Academic leaders, government agencies and funding bodies need to be much more transparent in this area. If they wish to encourage co-operation, it needs to be recognised and rewarded.

Following the demise of the binary divide between Australian universities and other higher education institutions in 1987, which resulted in the Unified National System, Australian universities began another process of differentiation, albeit an informal one. This differentiation is on the basis of various dimensions—research capacity, status, urban vs rural constituencies, vocational focus vs liberal studies provision. It may occur according to several different dimensions at the same time. However, differentiation on the basis of strategic goals and capacities is particularly influential in the area of postgraduate studies since this area is particularly sensitive to research directions and infrastructure. Over the next few years we would expect to see academics and institutions increasingly discuss the tension between access, equity and common goals on the one hand and, on the other, strategic goals setting, niche marketing and international benchmarking. Chris Beasley's response to Chipman makes some telling points in this regard. There are indications that fee-paying for postgraduate coursework degrees deter women, indigenous people and people of low socio-economic status from postgraduate study (Anderson et al, 1997) raising the question of how market forces will affect postgraduate research. There is also concern being expressed about the maintenance of standards in the face of increasing access to postgraduate training (Loxton, 1997).

As indicated above in reference to Clark (1996), discussion of the above issues is hampered by our difficulty with the more fundamental questions: What is a PhD? What is a PhD for? Who is a PhD for? When is a doctorate not a PhD? An earlier conference in New England (Maxwell & Carrigg, 1996) examined this issue and the 1998 Adelaide conference made significant progress in resolving some of these questions (see particularly Liljegren and Marginson). But there is still much more to be done at future conferences.

Internationalisation

It was clear from post-conference discussions that the next conference must be more international both in content and representation, which has implications for both agenda-setting and marketing.

To this end firm links have already been established with the Cape Town conferences. The First Postgraduate Experience Conference, held in Cape Town, 4-5 December 1997, was, by any reckoning an outstanding success. It was

oversubscribed, attracting more than 200 delegates representing more than 20 South African universities and including strong representation from Historically Disadvantaged Universities and Technikons. There were 13 international delegates from the UK and Australia. More than 50 papers and workshops were presented during the conference. The Second Postgraduate Experience Conference, will be held in Cape Town, 29-30 March 1999, with the theme developing *Research Capacity in South Africa*. Details are available from <<http://www.uct.ac.za/TechConf/>>. It is likely that the Adelaide and Cape Town conferences will continue as annual events alternating between these two cities.

A more basic issue is the question: What does internationalisation mean for postgraduate research? In his keynote address, Chipman pointed out the need to position Australian postgraduate training within a competitive global market. Should this be a source of anxiety or of excitement to Australian academics? Currently supervisory practices assume that students will be on campus for most of their candidature. Students involved in an industry-linked program already spend considerable time off campus, and we are working through the issues involved in this situation: responsibility for supervision, training of non-university supervisors, resource management, and ownership of intellectual property. International students may do a 'sandwich' or 'split' course, or they may do almost all of their PhD in their home country and it is the supervisor who does the travelling. However, supervision-at-a-distance is not one of our 'traditional' academic skills (Pearson & Ford, 1997). How should we utilise information and communication technology to provide postgraduate research training?

Several papers in this volume deal with the postgraduate education of international students coming to Australia (e.g. Cargill, Kiley, Scott, White). However, little attention is given to the topic of Australian graduates undertaking postgraduate study overseas or of postdoctoral careers overseas. A future conference with an international focus will need to address this issue.

In conclusion, there are several questions that seem to be relevant to the discussion of postgraduate education in any country:

- What is the purpose of various postgraduate programs—whether PhDs, professional doctorates or Masters programs?
- What are the learning, career and personal goals of the students who come to these programs?
- How can we understand how students learn in these programs and what should be done to structure and support the processes of learning, teaching or supervision, and assessment?
- How can we make sure that at all levels—from the individual student and supervisor, through their departments and schools, to the institutional and systemic levels - there is a guarantee of quality?
- What is internationalisation and what are the implications of internationalisation for the above questions?

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ADDRESS FOR CORRESPONDENCE

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MANAGING THE NEW AGENDA: IMPLICATIONS OF THE WEST REVIEW

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Thank you David and thank you also Mary O’Kane for your opening remarks which were very heartening indeed.

I want to talk to you today about the way the Higher Education Review Committee considered some of the research issues which confronted us.

Of all its responsibilities the West Committee found the chapter on research the most difficult to write. All seven Committee members contributed to the thinking and writing which culminated in the research chapter, as they did with the report as a whole. But I know I speak for the entire Committee in saying that the research was to many of us the most demanding simply because the issues involved are so complex.

The contrast between the Committee’s final report and the discussion paper, released last October, make the point. The final research chapter stands in sharp contrast to the discussion paper chapter which all of us acknowledge was anaemic. We recognised that the treatment of research in the discussion paper was less than satisfactory in both quantity and quality and determined to present our thinking on research and research training more cogently in the final document.

The sheer complexity of the issues involved in examining the role of research in their education additionally meant that it took a lot longer for the Committee to form its view on how the higher education sector should relate to research.

So, having acknowledged the complexity of the challenge let me explain some of the issues the Committee considered in determining its position on research and research training. Given the complexity of the issues involved and the vigour with which many advocates of change within the system expressed their views to the Committee I should explain how the Committee reached a number of its key judgements.

The first thing I must acknowledge is the common criticism within the higher education sector that the Committee consistently refers to higher education as an industry. I understand this criticism but whatever we think about it, there are all sorts of reasons which led us to accept the industry model.

One obvious reason is that the High Court decided some years ago that for the purposes of industrial law higher education is an industry.

The industry model also provides us with a means to analyse the role of research, and this was particularly valuable because in all our consultations throughout the system and in the expert advice we took it became apparent that higher education, including its research component, is an industry that is now going through what the economists would call ‘vertical disintegration’.

Let me explain why. The typical university is vertically integrated in that there is a connection between research and all its other key activities. The people conducting research are also designing courses, which are to varying extents, influenced by their research. They are also writing the curriculum, delivering it through classes or written study materials, assessing student performance and recommending award of credentials.

Now what became apparent to the Committee is that there is no irrevocable link between all these activities. There is no reason why any of them can not be hived off to specialist agencies. Throughout the system we already have examples of this sort of specialisation. Three obvious examples make the point.

Firstly we are all aware of specialised research institutions. Secondly more and more people are writing courseware for use in other institutions. And finally, we are seeing the beginning of the internationalisation of the system. At least two Australian universities are negotiating franchises which will allow them to award the degrees of other universities—universities from overseas.

The development of specialised functions within the system is also beginning to transform delivery. For example a university is being established under NSW legislation which will have no physical campus. This institution will award degrees from about twenty American universities, all at the masters level. It will teach entirely by encrypted pay television with a footprint covering the whole of Australia, New Zealand and most of south east Asia and the Indian sub-continent. This institution will charge full fees which may well be less than HECS.

It demonstrates how fast the system is changing when we face the prospect of a private university with no academic staff, no campus and no degrees of its own. It also is an example of the type of vertical disintegration that we are seeing world wide.

This is a trend which the Committee believes will continue as entrepreneurs look at the delivery of education services as a business. I understand there are already two universities listed on the New York stock exchange. *The Chronicle of Higher Education* recently suggested that private universities are a coming boom industry.

These factors made it obvious to the West Committee that Australia's highly regulated universities will have trouble competing with new entrants not subject to the same degree of regulation or the same comprehensive cost structures.

So this was the challenging context which shaped the Committee's consideration of research. It was compounded by the diversity and vigour of arguments put to the Committee on the role of research in our universities.

One view put to the Committee was that universities shouldn't be doing research at all. The argument is that while a research component might be good for universities there are almost invariably more cost effective ways of conducting that research.

We certainly took this economic rationalist view seriously enough to think through the role of research in universities and we came up with four reasons why research must remain a key activity for the system. I am not ranking them in any priority order because they are interdependent.

Professor O'Kane draws attention to one role which is to train researchers through higher degree research programs and no other organisations can do this as well as universities. Certainly there is room for improvement in research training in our universities and this is a key issue in the Report. However there is simply no large scale alternative research training system to the universities.

A second role is to provide teaching informed by research. We all know the arguments about the research—teaching nexus in universities and certainly the link is real though its intimacy is highly variable throughout the system. All of us are aware at the extreme of departments which conduct research and teaching but where the only connection between the two is that some people do both.

Of course there are many departments where there is a rapid transfer of research into the curriculum, from pass degree up and the Committee believes in encouraging this. Nonetheless we cannot just assume that the link between research and teaching is equally strong across all departments and institutions.

The third reason we agreed on was that university research contributes to innovation through the production and diffusion of new knowledge, new technologies, new techniques and operational skills. While the Committee has called for greater concentration of research activity in and across institutions there is no doubt that there will always be greater opportunity for the serendipitous development of new knowledge in universities because of the accidental clustering of disciplines together.

Finally the Committee believes that Australia's institutions, as part of the international community of universities share the obligation to expand the totality of human knowledge, basic and applied, theoretical and practical, pure and operational.

So far all these reasons the Committee rejected the argument that there are other and better ways of undertaking all or most research. It was obvious to the Committee that universities are very good places indeed to conduct research.

The Committee was also presented with the argument that the research function in Australian universities is an historical aberration. According to this argument, before the late 1940's Australian universities didn't do research. A few eccentrics might have potted around but there wasn't really any research and certainly the first two PhDs, a man and a woman, were only awarded by the University of Melbourne in the late 1940s.

Now this argument is quite common but it is sometimes exaggerated to the point of being just plain wrong. Melbourne University was conducting empirical research in the sciences back in the 1870s and it simply is not true to argue that the system did not undertake empirical research as distinct from scholarship.

Certainly the structure of research in universities has changed. There was not much in the way of postgraduate research supervision because there weren't many research graduates. Most of the masters degrees—there were no PhDs—were in arts rather than in the sciences and many were obtained by people who were school teachers.

The reason for Australia's slow evolution to the contemporary research culture is the hybrid model our universities adopted.

We adopted a hybrid English and Scottish model for our universities; from the English model we took an emphasis on scholarship and from the Scots offering professional degrees at the undergraduate level, as well as an emphasis on empirical research.

Although it certainly took a long time for a research culture to develop in our universities, it is wrong to say that they did not engage in research until recent decades.

Thus the Committee rejected the view that research in universities is some sort of historic aberration. And we certainly satisfied ourselves that it was in the interests of research and not just the interests of universities, for research to take place on our campuses.

The Committee also heard from people who argued that there were too many universities and we ought to go back to a binary system. Once again this view did not stand up to scrutiny. The international benchmarking undertaken by the Committee indicated that in the developed world there is roughly one comprehensive university—that is a university with a broad range of disciplines, teaching through to PhD level, and engaging directly in research—for every half million people.

On this measure Australia should have thirty-six universities. In fact we have thirty-eight, two of which are private. And when you remember that some distribution of universities is a matter of local economic and political necessity rather than a straight population factor—for instance universities in the Northern Territory and Tasmania—then we probably have about the right number of institutions.

The research corollary of this ‘over supply’ argument is that we should only fund a select number of research institutions and support the others as scholarly teaching colleges.

Advocates of this argument need to remember that the binary divide of the late 1960s and 1970s was abolished because it simply did not work. The idea of distinguishing between research and teaching institutions was misconceived from the beginning. Research was simply unstoppable within the then College of Advanced Education (CAE) and Institute of Technology sector.

These institutions did not receive government research funding, except for specific applied projects which they won at tender. Despite this they undertook research and in the last years of the binary system, when opportunities for academic staff were extremely limited, the research qualifications of staff recruited into the college sector were comparable with those of people in established university departments.

So the Committee rejected the views of the advocates of a new binary divide. We could see no point in returning to a system that had long ceased to function as its founders intended.

The Committee also heard suggestions that we should fund universities for research at different rates based on their current research performance.

We rejected this argument also because the Committee’s brief was to look at the next twenty years and it would have been irresponsible to freeze research funding in the system to reflect the existing situation.

To fund future research on the basis of existing performance is particularly inappropriate when you consider how much the system has changed in the last few decades. In the middle 1960s the Victorian Parliament debated whether graduates of the new Monash University should be awarded Melbourne degrees. The argument was that nobody would ever recognise qualifications from something called Monash.

Well, how quickly things changed. It took Monash less than two decades to become proudly competitive in both research and teaching internationally. And the achievements of some of the former institutes of technology demonstrate the enormous changes we have seen in the last few decades. The Committee certainly

would not wish to prevent the emergence of a future Monash or any other sort of institution by freezing research funding principles to suit the existing situation.

So, having outlined some of the radically different alternatives to the existing research culture within the system which the Committee considered, and in the main rejected let me turn to one area where we believe the system does need to pay closer attention. That is the area of research training.

The Committee focussed on research training because while it plainly belongs in the higher education sector, it is a key activity which universities can do better. There are over 22,900 equivalent full time research students in Australian universities, and far more actual individuals. Only 3,500 of them are fee payers with the average level of funding per research student through the operating grant being \$21,000 per annum. This is almost double the average level of funding for a coursework undergraduate. Thus it is a very significant component of university operating grants, and indeed it represents \$470 million in the total allocation to the system.

If you add to this \$21,000 per annum for a PhD scholarship with a stipend, then the average public cost of a PhD student over three and a half years, even without overheads, is a public subsidy of \$105,000.

The problem that exercised the Committee is that the allocation of this huge investment in research is neither systematic nor deliberate. It has been distributed through one-on-one negotiations between thirty-six universities and agencies of DEETYA, largely on a historical basis and until recently without reference to discipline mix or to desired outcomes.

It is blindingly obvious that the research training process needs more than the existing annual profile negotiation between each university and DEETYA to decide the mix between research students and undergraduates.

What makes this investment even more significant is the very, very high drop-out rate of research students. I do not have current national attrition figures, although some recent figures are contained in submissions received by the Committee. In addition the anecdotal evidence is stark. In some departments visited by the West Committee half the students never complete their research degree. Now I doubt it is anything like this nationally but wherever Committee members met research students their consistent complaint was the poor quality, as they saw it, and in some cases poor quantity, of research supervision. While this does not always lead to dropping out, it does contribute to disenchantment and delay in the development of original research.

In terms of research training, the most important initiative that we could adopt or recommend is something that went some way to address this ultimately inexcusable wastage.

Part of the problem is the broad issue of how to benchmark for quality supervision. The Committee was very impressed with the AVCC code of practice on research supervision and recommended its adoption throughout the system. Some universities, including my own, have endorsed it as their own operating procedure through their Council. But while I have not seen any criticisms of it I am sure some parts of some universities simply pay lip service to it.

We are not necessarily wedded exclusively to the AVCC document. The National Health and Medical Research Council statement on research supervision is also a very good guide. But whatever code of practice we use, establishing a document setting out the rights and responsibilities of supervisor and research student at the local level will certainly assist in overcoming the difficulties which research students confront.

Of course part of the problem is that research students don't necessarily know what to expect from their supervisors. There is definitely a need for greater communication in some discipline areas between supervisors and students so that everybody understands their mutual obligations.

Let me give you an example of one area where there is a great deal of confusion, not so much about supervision as about the expectations of students. There is now a cottage industry in ghost writing higher degree theses.

The level of tolerance of this practice ranges from zero to blind indifference. Now there are some real academic judgements to be made here. Some universities accept doctoral theses in languages other than English provided the examiners are fluent in it. Oxford, for example, in my postgraduate days accepted dissertations in something like seven different languages, five of which are still alive.

While there are exceptions in language departments, most Australian universities only accept theses in English. Now we think this is probably as it should be, but it does raise the question of research students with another primary language. Where do we draw the line between reasonable assistance in improving English, particularly where the thesis does not rely on fluency in English—in organic chemistry say—and ghost writing from a set of data? It is probably hard to define that exactly, but we found that many universities haven't really done more than nod at this as a problem.

There are obviously many other research related topics that time prevents me from raising today but I must touch briefly on three other issues which the Committee thinks are very important to develop an efficient research training culture.

The first is the question of student mobility. We are all aware of the low level of student mobility at the undergraduate level. It is partly a matter of tradition, it is partly because successive Australian governments have never accepted that funding the living expenses of students is a standard cost as opposed to an exceptional cost associated with higher education

But whatever the reason, only 5 per cent of undergraduates study in a different state from that where they went to school. Surprisingly, few of those who go on to postgraduate research work move states, though the number is higher than at the undergraduate entry level.

We believe that the national research effort suffers when bright students do not look beyond what is available locally. Obviously private costs are a factor impeding this necessary post graduate mobility, which is why the Committee's report recommends establishing a fund to encourage research students to move interstate when that is academically appropriate.

Similarly we must allow for a settling in period for research students who do move and that may justify extending their financial support by, say, six months.

The Committee believes that it makes sense to enable students to move to the university which offers the best match between facilities and expertise and their research interest regardless of its location. And to our pleasant surprise we have found significant interest in this idea, although it is an extra cost in research.

The second issue I want to touch on quickly is the proposal to establish a research training index. The index will make it possible for students to compare universities according to the capacities and capabilities which are important for their research.

I also want to recommend the Committee's proposal to liberate the Australian Research Council so that it operates as an independent body at arm's length from government, the universities and CSIRO.

Our view is that this strengthened ARC should have greater authority to both submit and receive submissions and set strategic directions for research.

There is no doubt that the impact of all factors I have outlined today will lead variously to greater selectivity and concentration of research training among institutions. And certainly the Committee believes that this mix of carrots and sticks is preferable to nominating some universities as preferred research institutions and concentrating funding on them.

This is why I was particularly pleased to read reports of the speech delivered on behalf of Minister Kemp to the OECD in Sydney on Monday (20 April). The speech stated that the Commonwealth Government considers training one of the main purposes of university research and that it is seeking a meeting with the National Council of Postgraduate Associations and DEETYA officials to look at the whole issue of research supervision and how Australia can do it better.

I hope that the work of the West Committee on research and research training will help with that process.

Thank you very much.

DIRECTORS AND DEANS OF GRADUATE STUDIES: A RESPONSE

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I would like to start by thanking Professor Chipman for finding the time to be with us here at the conference. Obviously there are considerable demands on his time at the moment in the wake of the release of the West Report. We are fortunate that he has been able to find the time to come here and elaborate on some of the themes, especially those in Chapter 6 on research and research training.

What I would like to do is to make some observations if I might in order to stimulate discussion. These observations are partly my own, and they are partly observations that came out of the discussion we had yesterday among the Deans and Directors of Graduate Studies.

Before I move on to those observations, I would like to pick up on one particular point that Professor Chipman made in his address. He made some observations about the national attrition figure and said that we didn't really have a very good handle on the national figure and lamented the fact that whatever it was, it represented a considerable waste of intellectual talent. One can not but agree with him on that. However, I would point out that there *are* data available on the national attrition figure and that those data were made available to the West Committee in the submission made by the Deans and Directors of Graduate Studies. We did that in two ways. We looked at the withdrawal rate across the system for 1996. It was 5.8%. We also went back to 1988 and looked at how many of that commencing cohort had completed degrees, how many were still in candidature and for how many had candidature apparently lapsed. The figure that we came up with there was 26% in terms of the lapse in candidature from that particular cohort. Of course, we do not know whether that attrition rate for the 1988 cohort applies today.

The other point that I would make here is that there has been some empirical work done on the reasons why PhD students withdraw from candidature. The evidence, I would like to suggest, is not as clear-cut as Professor Chipman has indicated in his emphasis on supervision. I will have more to say about supervision a little later. The evidence that colleagues and I collected at the University of Queensland some years ago indicated quite clearly that the primary factor in people withdrawing from PhD candidature—and again this was a 1987/1988 cohort—concerned personal factors. PhD students represent a microcosm of the wider

society. They get married, they get divorced, they have children, they change jobs and so on, and it was that constellation of personal factors that was most important in influencing whether or not somebody continued in candidature or withdrew. There were other things of importance—supervision, infrastructure and so on—but they did not figure as importantly in the data as the personal factors, and those personal factors held regardless of whether the student was in receipt of a scholarship.

But enough of that slight digression. Let me make some observations about what I see as the important thrust in Chapter 6 of the report that Professor Chipman has elaborated on today.

The first observation I would make is that there seems to be a rather curious dissociation between the approach taken to undergraduate and to postgraduate education. I think it is widely acknowledged that the approach taken at the undergraduate level is deregulator. But a different approach seems to be evident at the postgraduate level. Although there is a good deal of emphasis in the report on student mobility and choice, it does seem to me that there is a move here to actually have greater regulation and to have a more highly centralised system for organising postgraduate research training.

The report asks implicitly how many postgraduate research training places we as a nation can afford. This is a perfectly legitimate question to raise. However, I would like to challenge the basis on which an apparent conclusion “Not as many as we have now” has been reached. In one part of the report in a section entitled *Getting Better Value from the Investment in Research Training*, the observation is made that a survey in 1996 estimated that only about 44 per cent of the 1995 research graduates who were in full time employment by April 1996 had found employment directly related to their research training. The implication is that for the other 56% it was largely a waste of time and that perhaps this is not something in which we as a country should be investing.

I don't propose to enter into the debate about the interpretation of those data now. Suffice to say that I think it is questionable. It might be a useful point around which some discussion could be held.

The second observation I would like to make is about the national merit list. Again, it can be seen as a move towards centralisation. I have to say with all due respect Professor Chipman that I do not believe that it will work. I do not believe that anybody who currently works in administration in universities in the postgraduate training area believes that it is possible to draw up a national merit list. There are enough difficulties within institutions and across disciplines. There would be similar problems within disciplines and across universities and their combination would be an organisational and administrative nightmare.

I think that the implications in the report about selectivity and concentration are sensible. I think there is a good deal of unease in the system about the way in

which postgraduate research students are distributed; with whether or not they are finding themselves in departments or units or centres that do in fact provide an appropriate intellectual milieu for high quality research training; and with whether or not postgraduates always get the kind of infrastructure support that is optimum for providing high quality research training. So I think that that part of the report is a very positive one and it is to be applauded.

Whether or not an improvement in research training can be achieved through the research training index is a matter of debate. The research training index, as some of you know, is essentially the composite index with two extra components added—employment outcomes for graduates and the quality of supervision. Professor Chipman has stressed quality of supervision in his comments today. The emphasis is appropriate. It is something with which most if not all universities are grappling at the moment. It has been a matter of concern for Deans and Directors of Graduate Studies over the last three or four years during which we have discussed what constitutes good supervision, how best to develop guidelines on good supervision, how can it be measured, and how we build it into our processes so that it is simply not a code of practice that can be ignored, but is something that has to be confronted on a daily and weekly basis by supervisors.

So I do think that quality of supervision is something worth debating. I think the report is to be applauded for raising our consciousness, as it were, about the importance of the issue.

The other point that I would like to make concerns what I see as a slight obsession in the report with mobility. It is true that many of us working in this area have discussed over a number of years the desirability of student mobility. I think nobody in this room would disagree with the proposition that a prospective PhD student should go to the environment and the supervisor where he or she will find the most expertise in the area in which they wish to work. The reason that I have some slight concerns about mobility, or the way it is addressed in the report, is that there are no data presented, and I was very interested to hear Professor Chipman say earlier that there were data available about declining mobility amongst our research students. I would be very interested to see those data and to look at how our mobility rates compare with the United Kingdom and North America. I have no doubt they will be considerably lower but how much lower I don't know. I do think it is an issue that we should address.

I was concerned at a lack of emphasis on excellence in research training. There are ideas in the report about how to increase student mobility, but nothing directly on excellence. I would have liked to have seen the report raise questions about how we maintain excellence in postgraduate training, how we maintain the high standard that we have in this country so that our PhD and research masters graduates continue to compare favourably with the world's best.

The final thing that I would like to say moves away in a sense directly from the postgraduate area and more into the mainstream research area; it has to do with the report's recommendations with respect to the Research Infrastructure Block Grant. The recommendation, put fairly simply, is to remove the Research Infrastructure Block Grant as we now know it, to distribute the money to the departments that are responsible for the various national competitive grants, and to attach the research infrastructure support to each of the projects that are funded through those national competitive grants. This could ensure (although there are some obvious pitfalls) that research infrastructure goes to the researchers who win the project grants. However, I do think that it will have some rather serious implication for the support of postgraduate research training. Most universities spend at least part of their Research Infrastructure Block Grant assisting, either directly or indirectly, postgraduate research training at a level that is broader than simply an individual laboratory or an individual researcher. If the Research Infrastructure Block Grant goes, then the opportunity for continuing support for postgraduate research training via that mechanism will go as well.

No doubt my fellow panellists will have other observations that they will want to make and no doubt Professor Chipman would like the opportunity to reply to the observations we make. Thank you very much.

‘TO MARKET, TO MARKET?’: RESPONDING TO THE KEYNOTE ADDRESS AND THE WEST REVIEW

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INTRODUCTION

I was invited here to reply to Professor Chipman’s paper and relatedly to provide a response to the West Review from the *viewpoint of an academic involved in postgraduate supervision*.

Not knowing *exactly* what Professor Chipman was going to say and not sighting all of the final West Review (released last Friday) somewhat restricts my capacity to make detailed comments about either, and in any case I have only got about 10 minutes.

Nevertheless, I can say that many academics feel alienated from and marginalised by the New Agenda in Higher Education (HEd). And, this sense of alienation and marginalisation is linked to the increasing sway of a perspective exemplified within the main direction of the West Review and advocated by Professor Chipman today.

THE WEST REVIEW

So, let’s turn briefly to the West Review. The West Review contains three major themes, which are very poorly integrated: one of these themes is dominant and the other two are marginal and residual.

The dominant position is one you would all be familiar with and is characterised by the relatively new notion of HEd as an ‘**industry**’. While there is some interest in regulation at postgraduate level, the overwhelming tenor of the Review is market oriented. (This is unequivocally evident in relation to undergraduate studies which clearly has an effect on the postgraduate arena.) It is argued in this context that HEd should be more directly regulated by market forces. HEd should be more attuned to the model of competitive self-interest derived from business and correspondingly it should be administered in the style of ‘most business boards’ (in the words of the Executive Summary). The crux of the argument here is that **Higher Ed should become more like the market**. Let’s sum up this

dominant standpoint in the West Review by symbolising it in the timely figure of *Peter Reith*. Most of the West Review amounts to the desire to Reithafy HEd.

But simultaneously in the West Review there is a marginal theme which is associated with the language of ‘**excellence**’. This marginal standpoint amounts to a version of traditional elitism which can be summed by the symbolic figure of an Antipodean **Oxford Don**, the traditional scholar.

This strand of traditional concern with ‘excellence’ sits uneasily alongside a third rather residualised theme which points to the mass nature of HEd and occasionally pulls on compassionate and social justice terms of reference. There are invocations to an ‘inclusive society’ which offers **mass access to Higher Ed** and hence democratises learning. A vague conception of ‘opportunity for all’ occasionally surfaces.

Additionally, at times the marginal and residual themes in the West Review are very loosely linked together, even though the tensions between them are not confronted. This linkage expresses a desire to reconcile elite conceptions of intellectual merit with mass conceptions of access. In other words, the Oxford Don ‘excellence in Education’ figure is loosely linked with the symbolic image of Mass Democracy in the West Review in, for example, references to high flown notions of turning the whole of Australia into a ‘learning society’. The suggestion here is that everyone will have access to excellence. Everyone will be intellectually upgraded. The combination of traditional elitism and mass access may be symbolised by the **Caring Don**.

The figure of the Oxford Don, the image of the Democrat, and their somewhat unwieldy amalgamation in the Caring Don, involve several notional directions in HEd, but none of these directions in the West Review are likely to alarm academics, none are likely to be entirely rejected by academics. For a start, they do reflect existing features of HEd.

In many ways the Oxford Don and Democrat strands in the West Review simply reiterate tensions that have been around in HEd and indeed social democratic societies for aeons. In the specific instance of postgraduate supervision these threads are also quite recognisable. We have had after all two major ‘styles’, for want of a better phrase, of postgraduate supervision for some time. And these styles effectively coincide with the two lesser standpoints in the West Review, in that existing Postgraduate supervision has been marked by either the older, more established style of Master/Apprentice relations—a style strongly associated with the Oxford Don figure—or the newer style of Pastoral Care, which is associated with the image of the Democrat.

The marginal and residual themes in the West Review and their loose amalgamation are unlikely to be considered objectionable by academics. They are not problematic in part because they reflect existing practice. But more than this. Such elements in the Review are indeed likely to be those with which academics

are quite at ease. Why? Because both lesser themes and their amalgamation *all* involve, despite divergent elements, a characteristic understanding of academic life, including postgraduate supervision. That understanding of academic practice rests on a notion of **responsibility**, a sense of responsibility that goes beyond one's self and one's self interest or even the self interest of one's department, one's university or the HEd sector as a whole. This notion involves a *sense of responsibility to the pursuit of knowledge, the community of scholarship and to the learner and learning*. The notion of responsibility as the basis of academic practice is one which academics themselves embrace, whether or not they individually live up to it.

Which brings me back the dominant theme of the West Review, the account of HEd as an 'industry', the Peter Reith figure. This theme—unlike the loose linkage of the two lesser themes—is not integrated or even particularly linked with the other themes in the Review. Indeed the West Review is almost entirely dominated by the Reith version of HEd, with the other themes of excellence and mass access/social justice just tacked on here and there. In effect, those themes which are directly linked to academics' sense of what their practice is—that is, themes which articulate their sense of responsibility as the basis of their practice—are side-lined.

Now, obviously policy documents are the work of many people and represent many 'interests' and so it's no surprise to find that this one looks rather cobbled together. It's certainly no surprise to find inconsistencies. What is of concern is the overwhelming credence granted the dominant theme (the Reith view of HEd) and the related problem of reconciling Reith with the lesser combined theme of mass access to excellence—the Caring Don. Because the point here is that Reith and the Caring Don are not the same; they don't involve the same directions for HEd. They are different.

The dominant theme in the West Review asserts that HEd should be more like the market. The problem is that although the HEd sector cannot be seen as entirely distinct from the market, it does contain certain elements in it which are clearly *not like* the market. This is a *difference* which I suggest we need to recognise. It is a difference which in the area of supervision may even approach incommensurability.

It is argued in the Executive Summary of the West Review that it is 'desirable and necessary' to take an industry perspective on HEd because it is a part of the economy contributing 1.3% of GDP. This seems to me a very weak basis for a dominant stress on the market which is not sufficiently attentive to the potential difference between HEd and the market. After all the value of the household or domestic economy has been assessed as contributing between 52-62 per cent of GDP in Australia (ABS, 1992) but no one suggests that we ought to start importing a market model into our family life such that we ignore the differential 'altruistic' logic of the domestic economy. No one says we should start to weigh

up in market terms our exchanges with our sexual partners and children. But the differential functioning of the HEEd sector does not appear to get the same recognition, even though the consequences of introducing market practices into academic exchanges might also be very problematic.

Postgraduate supervision is a good example of this potentially incommensurable difference and explains why most academics are very nervous about the main direction of the West Review. If I were genuinely to take up a market model of practice as a postgraduate supervisor, that is, if I were actually to behave as a competitive individual driven by self-interest, a number of things follow.

- I would be mad to take up difficult students, students with emotional problems or those with challenging risky topics.
- I would never give any extra time to students or give over my own ideas to assist their intellectual ideas or fix a desperately unstructured thesis or provide serious ongoing editorial assistance.
- I would never offer gratuitous time to students who were way over their due submission date.
- I would never help a student who was not ‘mine’.
- I would never comfort a student weeping over the phone at 10 o’clock at night.
- I *would* try very hard to only take on healthy students with no emotional difficulties, lots of financial support, no young children, preferably from privileged backgrounds, consistently good if not excellent undergraduate results, clear and well developed thesis proposals, who really don’t need much help, can show evidence of being autonomous, highly motivated researchers and will not complain about anything.
- I’d take on, in preference, those students who had projects that could help me develop ARC or other grant applications and/or bring me into contact with business.
- I would only give minimum time to these students and offer minimal guidance individually, and/or see I would see these students in groups so they could support and help each other.
- I would organise an internal market between myself and my mates to ensure that all my students passed, and in return I’d pass all theirs.
- I’d suggest to these students that they regularly nominate me for teaching prizes and contribute testimonials to my applications for promotion as part of the ‘deal’ of them getting ‘through’.
- Moreover, I’d require each one who had a decent idea to produce an article or book from their theses and name me as co-author.

And I’m sure that as long as I was ‘efficient’ about getting students ‘through’, I would continue to find plenty of students to supervise. So-called ‘student choice’ (such as it is) would probably be satisfied.

This is behaviour that does conform to making HEd more market driven, more like the market, but it is at odds with what is actually required in any postgraduate supervision worth the name.

CONCLUSION

Academics in my view are rightly cautious about the new dominance of the Reith version of HEd because it has the effect of making it more difficult, not to say positively silly, to uphold a responsibility model whether it takes the form of the Oxford Don, the Democrat or the Caring Don. Most academics fear that the demotion of precisely those elements to occasional ‘apple pie’ footnotes in the West Review means that the themes of excellence and broad access for a range of students (including non-traditional ones) will be side-lined. This is not a matter of an antagonism to reform *per se*. It is not a matter of conceiving existing forms of postgraduate supervision as beyond reproach. It is indeed a concern with scholarship and with students, with the very heart of Higher Education itself.

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COUNCIL OF AUSTRALIAN POSTGRADUATE ASSOCIATIONS: A RESPONSE

Robert Jansen
President

Council of Australian Postgraduate Associations

I want to thank my other panel members: firstly David Siddle for pointing out a number of things I now no longer need to clarify, particularly the discussion about infrastructure support which is very important; and Chris Beasley for her excellent critique of the market and higher education.

As the President of CAPA, the Council of Australian Postgraduate Associations, I want to make a few points that relate more directly to the experience of postgraduate students. CAPA represents both course work and research students, and we have particular interests in the experiences of postgraduate students within their departments and within the sector as a whole.

Firstly I think it's interesting that Professor Siddle was talking about whether the section in the Report on research training is about decentralisation or centralisation, and I do pick up some of the more central elements, thanks to a discussion yesterday at the meeting of Deans and Directors of Graduate Schools. I am somewhat torn, because there is some support amongst postgraduate students for centralisation of some elements of funding, particularly those students that find it difficult to get money from their own universities for computers, rooms, travel, interlibrary loans, and all their other associated costs. They immediately argue that maybe this funding should be attached to them personally as allocated from the central funding body rather than funnelled through the university operating grant. Now that's a difficult position, given that there is a lot of argument for the need for the money to go through the operating grant in order to support the students in another way. I think we should have a debate about that.

There is an emphasis on the Research Training Index in the Report and I am concerned that this is based on the Composite Index. I hesitate to support the Composite Index because I think that it has fundamental flaws in it, and to build upon that to create the Research Training Index would be the wrong way to go about trying to allocate funded places.

There is an emphasis on mobility in the Report and I suppose that as a product of the Australian higher education system I intuitively think that mobility between universities for undergraduate and postgraduate training is a good idea. I'm not entirely sure where I get that idea from, but there is a recommendation for

financial support for mobility which is certainly important in the Australian context. I think there is evidence to show that students who can stay within their own institution or within their own city choose to do that. That's for convenience, and often for working with their chosen supervisors, but I think we should be encouraging more mobility and to do that by giving people extra funding for their scholarships is an excellent idea. I think that should also be part of a debate that we will have this year, in terms of providing a higher level of funding for particular students who find it difficult to cope with what is a low level of income at the moment, particularly those with families.

So I do congratulate the West Committee for coming up with ideas that the students probably would hardly have dared to ask for more money for people moving interstate. This is something we will certainly pursue.

My final comments are about the focus of the Report in terms of research training. What I would prefer to have seen was a greater emphasis on the quality of the postgraduate experience rather than issues of mobility or other funding issues. I think there is a lot more to be said about the quality, and improving the quality, of the postgraduate research student experience. Now I take the experience as a whole, three-or longer-year experience and that includes access to funds, a highly intellectual environment, a capacity to travel to conferences to engage with colleagues, all of those things come with the experience. And I think part of that, probably only a small part if we are talking about a large experience, is the issue of supervision. I think we could be talking about supervision again, and certainly the Report will promote that. I think there is some support from the Deans and Directors of Graduate Schools to talk about supervision and I am looking forward to being part of that and to involving a lot of postgraduate students in that process and involving, obviously, people here today who have a keen interest in it.

There is a suggestion made by the Minister that we will be having a symposium about postgraduate training and supervision. I think it will be a fairly broad debate that we will have and I'm hoping that the Deans and Directors of Graduate Schools will be centrally involved in that process. I'm looking forward to extending some of the debates that have tended to be squashed at different times in the last few years. Maybe overwhelmed by other issues is a better way of putting it. I hope that we can focus on research training and involve the key people in the sector, which for me is primarily the postgraduate students, in the discussion about moving forward from the West Report and picking up what I see as the useful parts of it and also being critical of those elements that we see as workable or may have a detrimental impact on the postgraduate research experience.

LOOKING TO THE FUTURE

An aim of all three Quality in Postgraduate Research conferences has been to examine the difficult issues and suggest answers to these, rather than simply restating the problem.

Two of the panel members, Annette Street and Tom Clark, were asked to address the difficult issue of:

What do you perceive to be the current problems with research degrees and how should we tackle these issues now?

as representatives of postgraduate supervisors and students respectively.

The other two panellists, Barbara Evans and David Liljegren, both Deans of Graduate Studies, have been invited to suggest possible answers to:

How would you describe the PhD in the year 2005?

WHAT DO YOU PERCEIVE TO BE THE CURRENT PROBLEMS WITH RESEARCH DEGREES AND HOW SHOULD WE TACKLE THESE ISSUES NOW?

Associate Professor Annette Street
La Trobe University
Australia

When the previous government advocated that Australia become the clever country they were not calling for an increase in classics scholars. Rather they were foreshadowing a dramatic increase in higher education research programs designed to meet instrumental and industry needs.

The Dawkin reforms of higher education changed the structure and clientele of universities without changing many of the basic processes or taking account of the effect on students and staff of providing doctoral level preparation for people from the professions. The economic and management discourses which both frame and construct higher education pathways for students and staff have tied funding to broader entry provisions, special incentives, productivity indicators and outcome measures. The West report reiterates this emphasis with its call for universities to regard themselves as industries; to move from a governance process of collegial decision making to a business model with executive decision structures.

I would like to highlight some of the complexity of the issues for research students and their supervisors in the pressure cooker atmosphere of doctoral programs in professional schools. In doing this I want to raise my concern that in our codes of practice and training for supervisors we often walk away from the very difficult task of defining what a PhD is and what a research student is. Yet our policies and structures assume that we are clear that there is a generic research student, that research training has an agreed upon meaning, that student desires and possible outcomes are similar whether they want to become a physicist or they are already the CEO of a hospital, that we as an academic community have congruence in understanding what a thesis is, how long it will take, and how it should be assessed. Yet one thing I have learnt from this conference is that although we are all talking about the same problems, our interests in them are diverse, we define them differently and we all have solutions which sometimes are at odds. Listening to all the different ways that universities manage research training suggests that we have a lot to learn from each other's policies and procedures; but my concern is that we have some more immediate work to do exploring the diversity of student needs and aspirations, the variety of the contexts

and situations they bring to the academy and the mutuality of the teaching/learning nexus played out in the supervisor/ student relationship.

I am a social scientist whose research interest and partnerships have been structured around the work of nurses and doctors. I am currently employed in a school of nursing so I am well placed to reflect on the issues for staff and students in this discipline. Rather than contribute more rhetoric around the discourses which frame and structure doctoral research programs, I want to articulate some of the realities experienced by supervisors and students. These experiences are often marginalised within a dominant discourse which describes higher degree research activity and scholarship in terms of funding, governance, regulations, outputs and outcomes. I am choosing to speak from out of my own specific experience as an educator in a professional school created under the Dawkin reforms. I wish to place in the centre of this discussion the primary relationship, that of student and supervisor.

Despite the introduction of management and industry strategies, the doctoral programs of today are still largely based upon a system designed to create scientists and scholars rather than professional community leaders. Those traditional university-educated professions, such as medicine and law, have not had a strong history of doctoral preparation for their graduates. Doctors and lawyers, like their counterparts in the emerging disciplines, have generally been educated to take their place in their discipline rather than in academia. University research governance processes assume that doctoral candidates have just completed an honours program and are at the start of their career. They are therefore able to study full-time, take direction on a topic which fits with the research currently being conducted in the school and be able to live on a scholarship because their fiscal responsibilities are not too demanding. This situation usually means they can be available for regular supervision, take advantage of university research and information technology facilities and complete in minimum time. These full time doctoral scholarship holders are deemed to bring money and prestige to the school and university.

The scenario is very different in professional schools. Students enter professional schools to be educated to practice in a discipline. An undergraduate degree in nursing is regarded as a general basis for further nursing specialisation. Most top nursing students bypass honours, opting to practice nursing in the first instance and then to do a graduate diploma or course work Masters program. They do this for professional reasons. These course work programs enable them to be credentialled or to practise in a professional specialty such as maternal and child health or critical care. Even those students who choose to do honours do not continue directly into a doctoral program. They choose to nurse and if they continue studying they will inevitably do a course work Masters because of the knowledge base provided by the practice subjects. This process of professional accreditation and specialisation is similar to the specialisation undertaken by medical graduates. Entry to PhD programs in both cases comes much later.

I don't want to reinforce a stereotype or create the generic nursing student but we have enough Australian data to be able to depict some characteristics which many nurses enrolled in a PhD program, hold in common. As nursing is predominantly a female profession a doctoral candidate is often female, mid life, studying and working part-time, with financial and family responsibilities and some health problems. Her previous study may also have consisted mostly of course work with a small thesis so she will have to adjust to the loneliness and pressure of an individual research program. She will have advanced practice experience in a nursing specialty and will have chosen her research topic from out of her professional experience and may have difficulty finding another doctorally prepared nurse qualified to supervise her in this topic area. However she will be unlikely to change her topic to be more congruent with her supervisor's work as she usually has invested a great deal of energy becoming expert in her own practice domain. Thus she will probably have a number of supervisors in an attempt to effectively cover the content and methodology. This will require her to manage to keep each person abreast of her needs and progress. During her candidature, she or a family member will suffer ill health or relationship break up, she will also have intergenerational family responsibilities. Her financial situation will require her to continue working for all or most of her candidature and may not enable her to accept a scholarship were it offered to her. She will be unlikely to finish in minimum time because her topic area will be previously unresearched and she will be determined to discover some important new knowledge as befits her leadership status in nursing. In DEETYA terms she doesn't sound a very promising research student and the university who accepts her will not be highly rewarded for their troubles.

Yet in her favour she will have maturity, a knowledge of the discipline, a capacity to manage competing demands, leadership and management experience, an awareness of her own strengths and weaknesses, a hunger for learning, a capacity for critique and reflection, and a determination not to let down those who are supporting her. What this student researches will undeniably be original, meet a profound public need and has immediate benefit to society. These students are very challenging and rewarding to work with. With effective, sensitive and supportive supervision she will produce an excellent doctoral thesis and go on to provide academic and professional leadership in the discipline. I know this because I have seen it happen many times.

But what of her supervisor? Typically, she will also be a middle aged woman with similar life experiences and responsibilities, also fairly new to the academy. As one of the few doctorally prepared staff in her school she will have been pressured into supervising a large number of students who have topics which are only marginally related to her own research interests and favourite methodology. She will also carry a heavy teaching, administrative and clinical load in a professional school with a very large undergraduate program. Part time students will be as

time-consuming as full time students as they will be juggling competing priorities which will affect their focus and productivity.

The supervisor will be over-used as the token woman on university and professional committees and will be expected to provide leadership in research and publication. Her annual increment may be dependent on meeting minimal performance goals, such as two publications in refereed journals or a research grant per annum. Sometimes her students will not be proficient at, or even interested in, writing for publication so she will get few co-authored publications from their doctoral work and will be under pressure to maintain her own research focus while keeping abreast of the varied research interests of her students. Her students will invariably step back into senior jobs in academia or the workforce as soon as they submit and be unlikely to continue researching and publishing with her so that all the research training she has provided will not benefit her own work. This means she will start again with a new student, probably an international student with English as a second language, in keeping with the university policy of recruiting full-fee paying doctoral students from overseas.

These scenarios are being played out in varying permutations with different professional groups throughout Australian universities. They illustrate a few key issues for students and supervisors.

Issues for students include:

- previous educational experiences
- age and situation of the student
- life stage events
- gendered and ethnic background
- professional knowledge and experience
- family and community responsibilities
- study status - part time or full time
- flexibility of programs
- information technology access in a virtual environment
- access to appropriate supervision
- opportunities for excellent research training
- location of resources for rural and remote students

Issues for academic supervisors include:

- changes to academic environments
- increase in academic productivity expectations
- increase in student expectations of supervision
- increase in accountability for academic practice
- loss of autonomy and collaboration in decision making
- students with varied entry preparation

- increase in international students - particularly in disciplines which rely on a highly sophisticated use of language
- diversity of student backgrounds
- dealing with highly regarded professional peers as students
- the part time student
- access to skills and expertise in information technology
- competing priorities
- life stage situations
- societal changes
- loss of research continuity with mature professional students returning to the workforce.

If we as a nation have decided to provide higher degree research training for professionals then we need to also be aware of the disincentives and disadvantages for them under the current funding and administrative arrangements.

HOW SHOULD WE TACKLE THESE ISSUES?

In a search for solutions where do we look? Does the West report have the answers?

In The West Report there is a clear depiction of the purchaser/provider split. Graduate students become the mobile consumers and universities, through their supervisors, become the providers. The call is to provide more information about the research training at various institutions so that students may make informed choices. This assumes that students can differentiate between the aggressive marketing strategies of open competition. It also infers that the best supervisors are the ones in the most competitive universities. As good researchers we need evidence that these assumptions are sustainable.

What is missing is any recognition of the student/supervisor relationship and its capacity to facilitate the growth of scholars and researchers of the future, but also to produce professional, community and industry leaders. Obviously we need to be accountable for the quality of our research training and mindful of the financial costs involved. Yet I am not prepared to accept that this means we have to jettison the collaborative, collegial relationships which have typified university research training to this point. The Dawkins reforms meant the broadening of academia to include a wider range of university preparation for the professions. Problems have occurred because those reforms were not paralleled by supportive structures which took seriously the differences in the kinds of students who enter our doors and the kind of supervision they required. With the West report we have the possibility of another major change which again works on the assumption that changes in policies, governance and funding structures will provide the surgery needed to improve the health of the postgraduate education.

I want to argue for diversity rather than homogeneity. An acceptance that research training for mature professionals may be very different to that provided to new

scholars; that part-time students may have different needs to full-time students; that not all students are located on campus or in laboratories; that research training resources may be located in hospitals or industries.

Scholarship processes need to be examined so that all those who fit into the category 'H1 equivalent' can be described and managed differently—not disadvantaged. More work needs to be done delineating the various kinds of 'thesis' that are appropriate for discipline areas. Innovation and difference could be encouraged and not just tolerated. We need to tackle the lottery of the examination process. Is a web site a thesis? We need to seriously examine questions of equity.

The outcomes for different students need to be clarified and negotiated with the students.

Styles of supervision should match student needs—many Australian students need to be able to negotiate the supervision process to be flexible and responsive. Some International students may need a more formal and structured approach to be culturally relevant. We need to acknowledge and better prepare for part time students and flexible delivery mode.

One of the solutions to the diversity of needs for doctoral research preparation has been to develop professional doctorates which sit along PhD programs. Professional doctoral programs are popular with many professionals who consider a combination of advanced preparation in the domains of knowledge, practice and research is of benefit to them. Diversity in approaches to doctoral preparation are necessary if we are to meet the needs of professionals who require thorough research training of the kind traditionally delivered by PhD programs. Yet central to the success of these innovations is a commitment to excellent scholarship which facilitates mentoring and research relationships. If students are encouraged to be part-time, external or mobile consumers of education they may lose out on the experience of learning to be a thoughtful member of the scholarly community; or important lessons on how to contribute to academic, political and community debates to shape the future. Idealists, visionaries, scientists and scholars are still needed by society to take their place alongside doctorally prepared professional leaders. We need people who are educationally equipped to critique and challenge the governing discourses of the present regimes of truth in our society.

Let's get the focus back onto structuring research relationships which facilitate this. Let's acknowledge that there are things on which we share agreement—common grounds we wish to defend. Let's acknowledge that there are different sets of knowledge that managers and supervisors and students have and listen to each other and learn from each other. And finally, there are many questions and concerns to which we have no answers. Let's search for answers together.

BEFORE VIRTUE: PROBLEMS WITH THE POSTGRADUATE RESEARCH EXPERIENCE

Tom Clark
President of the Sydney University
Postgraduate Representative Association

Associate Professor Annette Street has addressed the top-to-bottom issue of student/supervisor relationships within research degrees, and how they vary and evolve. My focus will be on the administrative culture—and more generally, the macro-culture – within which research degrees are located.

The title for these remarks is intended as something of a take on the communitarian philosophy of Alasdair MacIntyre. I suspect that they may be rather too narrowly focussed for the liking of many, for which I want to apologise up front. I was asked to ‘submit’ the draft one week in advance of the conference, rather like a research student should. This deadline, however, was one day before the West Review was handed down. Obediently, I complied.

Now, of course, we have something really big on our hands, which I must more or less studiously ignore. I would suggest that these comments be received very much in light of what was discussed at the first plenary session, then. No doubt much of what I say will need to be refined in the context of the West Review, and of the sorts of arguments put to us by Mr. Robert Jansen, Dr. Chris Beasley, and Professor David Siddle.

It strikes me that academic research is caught in something of a bind. On the one hand, there is a great deal of prestige in research; on the other, there is little money in research. This bind, or paradox, has manifestly harmful effects upon postgraduate research education. I want to address my remarks in part to problems of this type. But I also think there is a problem with postgraduate research studies that lies deeper than the bind. This deeper problem is largely a cultural phenomenon. It is bound up in perceptions of the place and purpose of postgraduate research studies, in what I regard as a ‘dialectical imbalance’ underpinning the discourse of the field. I appreciate that it is a tall order in a presentation of this scale, but I hope to show that this latter problem is at least as pressing as, if not more so than, the paradox confronting academic research generally.

That there is prestige in research is a bit like the proposition that Australia produces wonderful cricketers, men and women: it just **is** the case. This manifests itself in many ways. We know, for example, that those academics who have gone

on to publish (without great numbers of copies of those publications necessarily being sold) are in general regarded more highly than those who have not. That syndrome is known as ‘publish or perish’, and it is hardly confined to Australia.

That there is little money in academic research is a less metaphysical sort of statement. It is an argument that can be made in a number of ways. One may compare Australia’s research expenditure as a proportion of Gross Domestic Product with other OECD countries’ today, or with Australia’s ratios prior to (say) 1988, or take comparisons of research quantum against investment in research between Australia now and other OECD nations now, or Australia prior to 1988: the results show that Australia’s academic researchers are enduring a culture of relatively depleted resourcing.

In any case, we have a paradox here. The level of cultural privilege is at odds with the level of material support. It is certainly a paradox that seems to have engaged the attentions of those university administrators and others who are concerned to bolster the status and pursuit of research in Australia.

Theirs is no easy task. On the one hand, it is hard to prove that the status of research is in some way inadequate, when the status of research academics is generally higher than that of their teaching-focussed colleagues (which is an unhealthy enough phenomenon in any case). On the other, the status of research has hardly been sufficient to generate a successful campaign for increased funding. The same comparison could almost be made among the postgraduate students it is my task to represent, except that the less-esteemed coursework postgraduate degrees and diplomas are so much more commercially attractive to the institutions than the relatively prestigious doctorates and masters by research.

Of course, my interest in this derives from its implications for postgraduate students and for research education ‘on the ground’. The symptoms of the problem, as just outlined, are obvious at that level. For example, my university is talking about cutting its annual library budget by two million dollars in 1998. The target for cutbacks to journal subscriptions is twenty percent. Bear in mind that this is among the largest of university libraries in Australia, the library of a university which publicly claims to be:

Of course, outstanding within Australia in terms of its research and teaching performance. However, it is far from content with that comparison given its mission to be a leading international research (and teaching) institution.

Presumably, like so many high hopes in Australian academia, that ‘mission’ has now been defunded into abeyance.

The paradox is visible, too, in the research infrastructure support that is provided to postgraduate students at universities. While DEETYA conducts no systematic monitoring of infrastructure support for university students, the experience of

postgraduate representative associations around Australia has been of reductions in the working space dedicated to research students, less access to departmental and faculty equipment (such as computers, printers, and photocopiers), a serious decline in the opportunities to accumulate part time teaching experience, and so on.

These are ‘bread and butter’ issues for postgraduate representatives—they constitute some of the most significant aspects of the postgraduate research experience—and there is a clear sense among postgraduate representatives across the country that our bread and butter are growing increasingly thinly sliced and spread with the passage of time. On that ground alone, most postgraduate research students would say that there is a big problem with their studies. The overwhelming majority would identify governmental underfunding as the biggest common problem they confront.

So students are victims of the paradox: they aspire to achieve the status of excellent researchers; their enrolments are taken by universities’ public relations units as proof *par excellence* of institutional eminence; and then they confront the pragmatic reality of an under-resourced research effort in Australian universities.

It is tempting to conflate the relatively bleak resourcing picture with several other problems that confront postgraduate research students. For example, there are suggestions that ongoing privatisation and deregulation of the higher education system are linked to the distressingly high incidence of suicide among postgraduate research students. That is, the notorious ‘alienation factor’ among postgraduate research students is drastically exacerbated by the cutbacks to academic support for students and the commodification of their work. This relates very closely to the ‘loneliness of individual study’ raised by Street. Postgraduate representative associations deal with ‘alienation’ on a daily basis. It is one of the truly dismal aspects of the postgraduate research experience, taken as a whole. And this alienation is aggravated by the inhumane edge on the new commercialist agenda. But the alienation certainly predates Dawkins: surely something deeper is going wrong.

There is a danger, in placing too much emphasis on the status-versus-resourcing paradox confronting Australian research, that we treat research education too much as a subsidiary arm of research. Research studies have a life of their own, and this has to be taken into account in any efforts to describe those permutations of general problems that are specific to research education.

There appears to be an underlying cultural problem. It can be seen in the discourse around postgraduate research. It relates to widespread perceptions of the research pedagogy (by which I mean the whole gamut of relations between research students and their educations, as mediated by innumerable institutional and other factors that bear upon the postgraduate research studies experience). This discourse, the discourse around postgraduate research, bears all the hallmarks of an imbalanced dialectic, one that subordinates the lived and living experiences of

postgraduate research students to those teleologies of research education that lie at the core of policy and planning in postgraduate research education.

It is worth taking the time to appreciate this concept, the ‘teleological’ perspective on research education, as abstruse as it may seem, because it has such an impact on the way that all issues relating to postgraduate research (including ‘quality in postgraduate research’) are discussed. It refers to the attempt to appraise, even to justify, research education in terms of its product or outcomes.

Obviously, it has its place. The products of research studies, even quite unimaginatively conceived, are extremely diverse. The effect that a training corps of researchers has upon the national research effort is huge, if under-acknowledged. Ultimately, however, the justification of a system of postgraduate research education rests upon the students. The teleological, or product-driven, view of postgraduate research, focussed upon the value-added human capital that emerges from research degrees, can be a dreary and alienating account of the beings in question, research students, unless it is tempered by the other element of the dialectic.

That other element is the view from within. It is the perspective upon postgraduate research that comes from understanding the postgraduate research experience. Its legitimacy is that it appraises postgraduate research studies by their ability to deliver upon the particular learning experiences that motivate postgraduates to enrol and to persist in research studies. Now, I believe that there are some urgent problems (accessibility of postgraduate research education to socially under-privileged persons, for example) which are not inherently acknowledged by this voice. It is right that those with a view to the social outcomes of postgraduate research education impose upon the discourse an awareness of equitability and other such concerns.

What is not right—or rather, what is imbalanced—is the lack of opportunity for expression of the view from within. For all the value that is added to their ‘skills capital’ and their ‘insight capital’, postgraduate research students are not usually invited to contribute to the *management* of their own educations. There are exceptions to this tendency, and they are worth celebrating, but they are by no means usual. My experience of promoting the perspectives of postgraduate research students within a university has been very mixed. It is not that the university administrators do not want to engage with the experiences of students (far from it, in fact); just that the perspective derived from experience is so rarely permitted to interfere with the focus on institutional outcomes—it is so clearly accorded a lower priority than the usual managerialist expediciencies (which, ironically, are themselves justified along teleological lines).

If discourse analysis of this sort sounds far removed from the ‘bread and butter’ discussed above, I would reiterate that the teleological perspective dominates all the policy and planning that surround postgraduate research education. It is built

into all the resourcing decisions that impact directly upon students. That is because it is inherent in the all ways that students and their studies are discussed, and treated, by their institutions. The very term ‘research training’ is a perfect example. In other words, the ‘relatively bleak resourcing picture’ is itself a product or outcome of the telological perspective, the imbalanced dialectic, the discourse, the culture.

Now, somewhere in this vector is the key to a high quality postgraduate research experience—and that has to be the test of an excellent postgraduate research education. The flip-side of the coin is that the failure to solve the problems confronting postgraduate research education emerges from within this same vector. The general inability to push sufficiently compelling arguments for increased public funding of postgraduate research studies, and the apparent inability of today’s universities to reach out to many of their own students in sufficiently valued and meaningful ways, cannot be redressed without sufficient efforts to redress the dialectical imbalance between students and the custodians of their pursuit.

Equally importantly, much like Street, I am not sure that any of us here is really equipped to answer the fundamental questions that we have set out to address. I do not see that it is possible to assess adequately the quality of postgraduate research in Australia today without bringing ourselves to understand the criteria that students inevitably apply in appraising their study experience from moment to moment. Postgraduate research education is the vehicle for an amazingly rich array of experiences, typically conveying them for between two and ten years of a student’s life. This vehicle cannot be assessed without close reference to its intended cargo.

Postgraduate representatives will make the case forever, because it is genuinely essential, that the experiences of postgraduate research students must be taken as the benchmark for quality in postgraduate research studies. My immediate impression of the West Review, by the way, is that it has failed to grasp this fundamental point. No doubt Doctors Barbara Evans and David Liljegren will be able to solve this problem by 2005 AD. I mean, I wish them the best of luck!

A DEAN'S EYE VIEW OF THE PHD IN THE YEAR 2005

Professor Barbara Evans
The University of Melbourne
Australia

THE PHD...AND OTHER DOCTORATES

The PhD is a very old degree. It was first awarded by the University of Paris around 1250. The Universities of Paris and Bologna had been established since the middle of the 12th century; Oxford was established in 1167. By 1287, there were 30,000 students at the University of Paris and 10,000 students at the University of Bologna, and by the 16th century there were 79 universities in Europe. Wilhelm von Humboldt was a prominent educational reformer in Berlin, around the turn of the 18-19th centuries, placing great emphasis on the central importance of research. The PhD became primarily a research degree towards the end of the 19th century, after Humboldt's time but strongly influenced by his ideas.

When universities were established outside Europe, in America, Australia and Canada, they were founded on the European tradition and staffed by those who had taught in European universities, so not surprisingly they also focussed upon the importance of research.

The three aspects typical of PhD programs were that they involved:

- a period of lengthy study under appropriate academic supervision,
- the conduct of substantial piece of original research leading to a contribution to knowledge, and
- the preparation of a written thesis. Previously, theses had been presented verbally and were open to public disputation.

The structure of the PhD has been relatively stable for many years. However, currently there is considerable reflection among academic and wider circles as to whether it remains relevant in the present social and economic environment. Does the PhD still provide value to the student, the university, the profession/industry, and the community? Will it continue to do so into the next century? Many employers already question the value of the PhD in terms of the relevance of the skills it provides to their particular business or industry. Often their preference is to take on honours graduates and then 'grow' them into the sort of employee that they require.

While considering the PhD it is also appropriate to reflect on another doctoral degree, the professional doctorate (PD), which has been gaining popularity. Professional doctorates have been the subject of considerable discussion in recent Deans and Directors of Graduate Studies (DDOGS) meetings, in DEETYA Evaluations and Investigations Program publications, and at this conference. The forms of PD programs in different institutions are somewhat variable and the DDOGS group is in the process of developing a set of national guidelines to define an acceptable and more uniform structure in regard to entry level, proportions of research/coursework and nature of the professional focus.

While at present there are clear distinctions between the two, the structures and requirements of PhDs and PDs are slowly converging. Professional doctorates typically have course work and their research is professionally focussed. To an increasing extent, PhDs are including elements of course work and there is pressure to focus more on the usefulness of the research that is conducted. In any case, and particularly in the humanities, the distinction between research and coursework at a 'doctoral level' is rather difficult to define, and the definition of a research degree as being one that is 66% or more research somewhat arbitrary. No doubt, by 2005 many PhDs will incorporate significant work in addition to the research component.

THE 'THESIS'

One aspect of the PhD that is already changing is the form of the published thesis. Questions have been raised even at this meeting about whether theses of say 80,000 to 100,000 words are too long. Does such a length encourage the development of skills of prioritisation and succinctness, the ability to discern that which is central to the issue from that which is interesting but extraneous? Moves to increase the amount of course work in a PhDs may also lead to reconsideration of the length of the PhD thesis.

Recently a student requested permission to submit their thesis in the form of a book ready for commercial publication; in other words a thesis in a less formal style and directed at the general public—definitely not what we have come to expect of a PhD thesis! Not infrequently we are asked to approve a collection of published papers, possibly sandwiched between an introduction and conclusions, as an acceptable form for the PhD thesis.

Advances in technology are also leading to change. Students are expressing interest in submitting their theses in electronic form. In fact the submission of electronic theses has been required by certain universities in the United States for the last ten years; this is not new. The electronic theses are then put on a network digital library of theses and dissertations (NDLTD). This leads to complexities associated with controlling access to those theses that may contain work which has not yet been published in a formal way or which are subject to confidentiality

clauses. Appropriate mechanisms to provide protection and control of access must therefore be incorporated.

In certain disciplines including some relatively new to the PhD, such as the creative and performing arts, the ability to present at least part of the thesis in multi-media form—a video, a CD or a web site—allows more flexibility and a number of advantages.

It is timely to redefine exactly what we require in a PhD thesis, and what flexibility can be allowed, even encouraged, taking into account changes in technology and the differing requirements of different disciplines.

CHANGING DISCIPLINE-SPECIFIC NEEDS

The evolution of the PhD is occurring at different rates and directions in different disciplines. My colleagues in laboratory-based disciplines, where a PhD leads on into scientific and medical research, are generally satisfied with the current structure. For them the PhD needs little change. In industry linked areas such as engineering there is an increasing need for PhD graduates to have more applied research, teamwork and management skills, leadership and business training. For those moving into professional fields, such as the health services or teaching, particular professional skills are required.

CHALLENGES TO POSTGRADUATE EDUCATION

The postgraduate student profile is changing and students are seeking greater flexibility in the courses they undertake. Increasing numbers of students, changing proportions of males and females, less traditional entry points, diverse academic backgrounds and cultural differences, the great advances in the fields of communications and information technology, and the internationalisation of higher education generally, will all impact on the modes of delivery of higher education and on the ways in which we should redefine the PhD and doctoral education generally.

Off-campus delivery requires special planning to provide excellent supervision and the stimulating ‘postgraduate environment’ that is critical to the best postgraduate education. Students are encouraged to travel overseas, placing additional demands on quality supervision. Email may help if the student is not on a remote island somewhere, phone contact may be unreliable and the postgraduate environment is often non-existent. Then there are open campuses, distance delivery of courses and even ‘virtual’ universities, which have no campus at all.

Career preparation is an increasingly important component of postgraduate education. Employment opportunities in academia are decreasing and business, industry and commerce are requiring broader skills in their potential employees.

Higher degree courses must provide students with transferable skills applicable to a much wider range of career options.

WHAT MUST WE DO?

There is nothing new in what I have said. These points have been discussed, reported and written about for the last several years. It seems to me that we don't need to write any more books and we don't need to talk any more. We need to start actually doing something, to convert all the talks and reports into practice. And we don't need absolute consensus across Australia, or within a state, or across universities, leading to a detailed set of guidelines to which everybody has to adhere. Flexibility within an agreed framework seems to me to be the way to go. There is differentiation across universities, which is appropriate and valuable, and which should not be lost. We therefore need to develop broad guiding principles for Australian tertiary institutions that will define what we believe is important in the PhD, and which can be used in the development of new courses. The DDOGS are already undertaking this process for PDs. I believe that we must do the same for the PhD and also consider the ways that PhDs and PDs relate to each other.

The PhD has had a long and respected history. In the year 2005, it is important that the Australian PhD should be able to accommodate diversity within a clearly stated and appropriately flexible structure, which leads to it being valued both nationally and internationally by students, universities, the employers of our students and the community.

THE PHD IN 2005 AND ENSURING THE QUALITY OF THE POSTGRADUATE EXPERIENCE

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SOME BACKGROUND

In 1984 the then Vice-Chancellor of The University of Adelaide, Professor Don Stranks (1984) wrote

The lack of any significant formal coursework within our PhD and Master's degrees by research has continued for three decades. The focus of our PhD type research degrees continues to be the research project and this is almost the only medium by which education is accomplished. (p. 167)

Stranks was discussing Australian PhDs in general and it is fair to say that relatively little has changed since that time.

What has taken place at an increasing rate is a discussion of what type of activity should be accepted as the legitimate research backbone of the PhD; how do we define research in this context?

A recent publication has addressed this issue as part of a wider examination of *Research in the Creative Arts* (Strand, 1997). Strand acknowledged that this is a controversial area where there is a lack of agreement among key stakeholders:

The question of what is research in the creative arts is one that has special significance in Australian universities today but little significance elsewhere. Its importance lies in the fact that there are scarce dollars attached to the definitions of research and it is in the interests of the creative arts sector that the question be comprehensively answered.

The scarce dollars may of course also attach to research training.

The area of Creative Arts might provoke more debate than some others but similar considerations apply to those designated as 'applied' or 'professional'. On the one hand we know that the generation of new knowledge on a topic in one of the Sciences is perfectly acceptable to present for a PhD (although some do find "Learning more and more about less and less until one knows almost everything about nearly nothing" (Garcia, 1997) to be an exercise in time-wasting). On the other, some question whether addressing a portfolio of related problems within

the professional context of, say, education or architecture can lead to an acceptable PhD thesis. And this has led, at least in part, to the spectacular rise in the number of Professional Doctorates offered by Australian Universities (Trigwell, Shannon & Maurizi, 1997).

In parallel to this debate some industry leaders have questioned the suitability of the present PhD program as ideal preparation for a non-academic career (Clark, 1996). More coursework is proposed together with developing good numeracy, communication and negotiating skills along with problem solving, decision making, project planning, teamwork and networking abilities. These arguments are seen by some as supporting the development of professional doctorates as distinctly separate degrees from the purely research PhDs.

Almost inevitably concern has been expressed that the introduction for what may be seen as rival or alternate forms of doctoral education might erode the stature of the PhD. However there are those that maintain there is a greater risk of compromising the quality of the PhD by its extensive modification to suit purposes other than those currently valued by academia (Brine & Christensen, 1996). Two formats for doctoral degrees are proposed: "One which satisfies the traditional demands of research training for an academic or research career and the other which educates for higher level participation in industry and the professions." Appropriate and equal kudos would be afforded to each.

Overlying these considerations are those of DEETYA definition and funding. Until 1995 research degrees were defined as those containing at least 51% of research as opposed to coursework content, but from that date the necessary research component was increased to 67%. Until relatively recently EFTSU numbers related to coursework or research higher degree programs were negotiated with universities as part of the profiles exercise and funded accordingly. However more recent events have seen DEETYA funding for research degrees maintained whilst coursework awards have, by and large, been pushed into the fee-paying arena.

How has this affected the PhD? Not at all, since the traditional Australian PhD fits comfortably within the research degree definition and is funded accordingly. And Professional Doctorates? Is it a surprise that a recent survey (Grichting, 1997) found 59% to be research degrees according to the DEETYA classification? And this is probably an underestimate as 75% required a research proposal as part of the coursework component?

TOWARDS 2005

It would seem to me that many of these confusing and potentially divisive debates could be avoided if two main principles were adopted:

- that we do not refer to PhD or Professional Doctorate awards but simply Doctoral awards, and
- that DEETYA cease to discriminate research and coursework awards at doctoral level for funding purposes.

The consequences of this approach would be most importantly that the mixes of research and coursework within a doctoral program would be specified with regard to academic desirability and not funding imperatives. The result would provide the most appropriate mix of coursework and research for the professions whether these be law, engineering, nursing, education, academia or pure research of whatever flavour.

Most importantly, universities could develop their mission statements and strategic plans with total sympathy to the needs of industry and society they saw themselves serving; universities would become differentiated, but for strategic reasons.

HOW TO ENSURE QUALITY?

A few fairly obvious points:

- Doctoral programs must be adequately resourced. Funding flowing to institutions must reach those developing and maintaining the doctoral programs. This should not only relate to more traditional areas of research infrastructure but extend to staff time for the development of high level coursework. This may involve inter-institutional cooperation for economies of scale.
- Doctoral programs must be delivered at the highest level. Most universities now have Codes of Practice for the oversight of research degrees. These should be extended to cover programs with substantial coursework content. Differences between Masters and Doctoral teaching should be explored and defined in coursework as well as research; credit transfer should be controlled.
- Doctoral programs should be developed in conjunction with industry partners and professional organisations. This should ensure acceptance of award programs, cooperation when seeking industry inputs and mutual respect of those involved.
- Doctoral programs should be subject to self-regulation in conjunction with accreditation by professional organisations.

IN CONCLUSION

These points are raised for discussion and do not necessarily represent the views of The University of Adelaide.

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POSTGRADUATE RESEARCH: RETROSPECT AND PROSPECT

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Thank you all for staying to the end of the conference. I also want to thank the conference committee most sincerely on our collective behalf, for organising the conference. Opportunities to reflect in a larger setting such as this are priceless. We're wise to have taken the opportunity to be here. We're all under pressure and there are more and more things happening in the external environment that determine life within our institutions. The conference has provided us with a chance to compare notes, to develop new techniques, to seize upon some good new ideas, and to develop ideas of our own. And I also want to thank the organisers for inviting me to do this final session. It has forced me to think more deeply, to reflect on what I heard in the last two days, and to develop some thoughts for you all.

It's appropriate that a group based on the three universities in Adelaide organises these conferences on what is becoming a regular basis. Adelaide has a very strong intellectual tradition within the Australian university context. It's a place for things of the mind. In a lot of ways Adelaide is not a place for other things—economically speaking—so that it has to be good at things of the mind! Judging by the sight of some people coming into breakfast round about nine o'clock or a bit later this morning, it's also a place for obliterating the mind. But I suppose that's just the other side of the same coin.

Well, what to talk about in this final session? I was cunning. Before preparing this speech I took a look at the conference evaluation sheet. I noticed that the test in relation to my presentation is two-fold, with a five point scale from 'strongly agree' to 'strongly disagree'. 'Dr Marginson, Friday three o'clock'. The first test is 'Summarised major themes of conference'. And the second test is 'Effectively identify issues needing further discussion'. Well, in relation to what to talk about, I thought I'd pick two themes: I thought that I would summarise the major themes of the conference, and I'd identify issues needing further discussion.

However, taking Tom Clark's point about reintroducing the subject into the equation, I'm an active subject as well as an object of your performance assessment. There's a third test I'd like to insert on that evaluation sheet—'Reflected on issues that were of significance to himself and communicated these to the group'. So I'll do that as well.

GENERAL AND PARTICULAR

Conferences like this have a dual purpose. They are an opportunity to comment on, reflect on and learn from each other in relation to particular issues, and there are quite a range of them in this field. The sessional and workshop papers are particularly valuable for that function. The other purpose of such conferences is that they enable us to reflect on the larger policy and management picture. That larger picture, that larger set of discourses and policies, does effect in concrete ways those particular issues that we deal with on a daily basis. The Postgraduate Student Associations play a significant role in this regard because they bridge both areas. They're perhaps the group that most obviously has a strong interest in both the particular issues, in research administration for example, such as issues related to supervision, and the formation and changing of the larger national policy discourse that draws us all together.

The problem with the larger discursive issues is that there's a tendency to rely on broad generalities at the expense of particularities and complexity. A kind of lobotomisation takes place, whereby we start thinking in very simple general terms. In a setting like research policy I feel the need all the time to reintroduce the complexity, to reintroduce the particularities of each discipline. There's an inevitable and probably healthy oscillation between the impulse to particularity and the impulse to the general.

We've got to keep both balls in the air. If we become stuck in a general discourse which doesn't connect very well to the specific, we really lose it. In this summary of the conference I'm largely going to reflect on what was said in the plenaries, and the plenaries have tended (in the manner of most conference plenaries) to operate at the general level, but that is not to say that the substance of the smaller sessions and workshops was not equally important.

I went to some pretty good sessions. The papers on intellectual property I found very useful. Of course there have been a range of good sessions on supervision and related issues. Cross-cultural international themes are emerging as more and more important and will continue to do so. It's good to see that issues of part time and distance learning have been addressed at this conference, because I think they're going to be increasingly important as well.

DISCUSSION OF THE WEST REPORT

The big macro theme of course is the West Report. Its content is very attenuated, compared to the major national inquiry reports of the past: it doesn't cover the generality of issues before this conference at all effectively. A whole range of matters aren't even mentioned, and a larger group are mentioned but are not engage with effectively. Nevertheless, we were fortunate to have Lauchlan Chipman to address us yesterday morning. His comments were very interesting

and bear close scrutiny. I want to focus on three things Lauchlan said, and one thing he didn't say.

Firstly, he reminded us that the West Committee was committed to the role of research, while noting in passing that the view was put to the committee that research is not necessarily economically rational. You will remember that a bit later he talked about the research training budget at \$470 million, and he raised questions its direct benefits. In this context, the research training budget immediately sounds politically vulnerable. It goes to what Tom said this morning. In my view the West Committee does not provide sufficient grounding for the continuing role of government-supported research, just as it doesn't provide sufficient grounding for the continued government subsidy of tuition for undergraduates.

An argument based on direct economic benefit is clearly not enough. Arguments about indirect benefits in the economic context always sound very limp and unconvincing. It's only when you take them out of the economic context and call them direct benefits of an un-economic kind that they begin to sound more convincing. The real justification, as Tom said, is that research is formative. Research training is formative, research is formative, formative of researchers and their attributes and identities but also formative of social relations, social life. And in that context research is transformative.

Ian Chubb made the same point more generally, in relation to not just research but higher education. He said that higher education makes a different kind of society possible. Higher education and research are formative. Spending money in these areas has consequences.

Now that might sound a bit general and abstract for a public position in support of public spending on research training. I hope it isn't. It's a simple point, really. The same argument can be put in relation to food. The larger justification for food is not that the production of food constitutes an industry that makes money for the people who own the companies that work in that industry, or even that it provides jobs for their employees. That's not the fundamental justification for the existence of food and food production. The larger justification for food is that it keeps people alive, it constructs their bodies in material ways, and it provides necessary conditions enabling them to do almost everything else that they do.

Food in other words is formative in the biological sense; and providing food has a whole range of formative social consequences. It's the same with education and research. They are formative, they're productive; and because they (especially research) embody a reflective aspects as well, they are also transformative, socially transformative. Much of the future in these late modern society is tied up in their education and research systems. The West Committee is completely oblivious to this.

Secondly I want to work through what Lauchlan said in relation to the 'need' to reform research training. Given the West Committee premises, he provided a detailed and clear-minded justification for the Report's proposal for the marketisation of research training. \$470 million is spent on research training. There's a high drop-out rate from research degrees: he hinted it might be half in some institutions some of the time (though David Siddle later pulled that back to about a quarter). And according to the Report less than half the graduates in research training actually use their research training in a direct sense, as university teachers or active researchers in industry. Thus Lauchlan built a picture of a system in which only about half the students complete, and of those only half use their research training as they should. Less than a quarter of the research training system is 'successful'. The average cost is \$135,000 per student. Research places are allocated by individual institutions without reference to the overall national discipline allocation. Couched in these terms, no wonder research training is to be reformed.

At this point Lauchlan brought the dissatisfied customer into the argument. He told us that the poor quality of research supervision is the major problem identified by students in surveys. What then is the solution? The solution is a competitive market in research training. Thus the West Committee's reform proposals are seen to take place in the name of the student—though in this case the purported cure for the problem of poor supervision might make the disease worse; and every student association, every organised student body, actually repudiates the connection between the problem and the solution! Of course the West Committee sees the competitive market as THE solution to every problem, real or imagined, in higher education. Every policy argument is reduced to the same intellectual framework—the problem is the lack of competitive market forms and incentives and behaviours; the solution is to introduce a competitive market. In this case, that means competition between institutions for students. A market of course is characterised by choice and the field of research training, the evidence for the existence of competition and choice is the presence of greater student mobility. Thus in the Committee's thinking, the way to 'create' a market is to create the symptoms of the market—that is, to create a greater measure of mobility. The Committee wants to create mobility artificially, by providing subsidies for it. It wants to interfere in the market, in order to create the appearance of market, a pseudo-market.

It's the lack of reflectivity in relation to market reform and competition that I found the most surprising feature of the Report. Some of us worked hard in the lead up to try to persuade the West Committee to think about how competition in higher education actually works, particularly in relation to the segmented character of education markets—well established in the literature—and the tendency to form a largely 'market-immune' layer of elite institutions protected by inherited prestige. In the face of these arguments, Lauchlan's response was to claim that the West Committee reforms would shift us from students competing

for universities, to universities competing for students. But in a money-based competitive market, whether in research training or undergraduate tuition, the prestige factor becomes more important rather than less. The Universities of Adelaide and Melbourne tend to have more students queuing outside the gate, not less. They are in a stronger position to ignore the customer than they were in the absence of fee-charging and/or vouchers. The logic of free competition breaks down. That point was made repeatedly to the West Committee. They've simply passed over it.

The third matter I will reflect on is Lauchlan's points about the specifics of the West Committee's proposals, such as the research training index and the national merit list. He said less about those detailed proposals than we might have expected, but more emerged in the subsequent discussion. The research training index is an important issue, one that isn't going to go away. We all need to think about it. The most troublesome area is the measurement of quality of supervision. At worst this could lead to a single number, a singular simplistic measure of 'quality' per institution, which would be quite a problem. For some time we've been in that kind of bind in relation to the undergraduate teaching, for which 'quality' is measured by the Course Experience Questionnaire (CEQ). The distortions and over-simplifications caused by a single number index would be even greater in relation to research, where discipline specificity is particularly important. Generalisations of supervisor quality based on single measures would be almost meaningless as indicators of quality—especially as the measures of quality are likely to be closer to the character of some disciplines than others—but could drive all kinds of perversions of the administration of supervision in order to maximise scores.

Finally, there is the issue that Lauchlan didn't mention. That is the West Committee's argument that the number of funded research training positions should be reduced. I'll read you a couple of sentences from the West Committee Report. After the Committee explains that only 44 per cent of 1995 research graduates in full time employment were in employment directly related to their research training, it says, two paragraphs later:

'The Review Committee is not convinced that the current level of funding for postgraduate research training is appropriate and believes that the effectiveness of the Commonwealth's higher education research programs might be increased by re-allocating some funding currently devoted to research training to other programs such as postdoctoral training.'

Now firstly that is a gift to the government—a government that wants to shave funding—and secondly, if that funding shaving does occur it's unlikely you'll see a redistribution to postdoctoral research training. What the Committee is really talking about is a reduction in funded research training places, and thus a reduction in the total volume of research in Australia, much of which is produced by postgraduates. That's an important problem for the research system to address.

The responses to Lauchlan were interesting indeed. There was a fascinating line up of speakers. I thought David Siddle was very effective in the way he dealt with the Committee Report. He challenged the data on national attrition. He pointed out that the reason why students withdraw is often not that the product is a stinker, but that the 'consumer', who's buying not over a single moment like in many other acts of consumption but over a protracted period of three to six years, might decide not to keep buying after a certain point for personal reasons. (This illustrates how the market model doesn't always deal appropriately with the complexity of research and education). David challenged the point about research outcomes, about the direct outcomes of research training. He perhaps didn't give sufficient recognition to the existing problems of postgraduate supervision, especially the more fundamental criticisms of the master/apprentice relationship at the roots of conventional supervision. Perhaps understandably, he focused on the West Committee Report.

Chris Beasley, after a slow start, gave a brilliant speech. Her rhetorical figure of the competitive, self-interested supervisor, and her exploration of what that person would do following the logic of the market, was a very effective device. Perhaps more important was the useful discussion of some of the different figures that dot the pre-market landscape: the traditional don, the pastoral carer, the don who's also a provider of access. She argued that the 'Reithification' of higher education, the notion of higher education as an industry, simply displaces those pre-market roles. It doesn't reach a happy medium with them, it pushes them aside and puts another kind of academic figure—corporate, entrepreneurial, self-interested—in their place.

I found all of that to be completely convincing. At the same time I'm not sure that her strategic response was adequate. Her approach was basically to refuse the notion that higher education was an industry. That leaves us nowhere to go except back to collegiality, which is nowhere to go. Back to the lack of transparency and accountability, back to the god professor, back to the master-apprentice relationship, back to those features of the university that we know are increasingly problematic in a late-modern or post-modern framework. It's not a viable strategic position, it's not a desirable educational outcome.

Management, external forces, fundraising, stakeholders, the demand for transparency and accountability: they're not going to go away. We have to deal with them. As it so often is in relation to complex political problems, especially in higher education, the answer is to recognise the multiplicity higher education—to acknowledge that it's both an industry and also a place where knowledge and people are formed. Recognising both is essential. If higher education becomes just another industry and we lose sight of what the specifics of education and research entail—as, I believe, the West Committee has done—then eventually industry effectiveness is lost. Higher education institutions lose touch with the heart of their business, and are readily pushed aside by all the new producers of knowledge and entertainment from outside conventional education. But if higher

education refuses its industry character and clings to a more traditional view of its mission, then it will lose control over its agenda—it will lose its own identity altogether.

Thus neither of those strategic alternatives, neither the West Committee alternative nor Chris's alternative, are viable. We have to take account of both sides of the policy problem, both the economically rational aspect, and the education and research for-their-own-sake aspect, in whatever strategy we come up with.

Rob Jansen was handicapped by the fact that everyone had said everything before he spoke, but he made the important point that the Research Training Index (RTI) will partly rest on the Composite Research Index, and the Composite Research Index is flawed. That is something we'll need to discuss in the coming months. The problem with the Composite Research Index will be revisited on us with the RTI unless we pursue the Composite Research Index issues more effectively.

The other speech that contributed to the discussion of West was Tom Clark's this morning. I found that to be a very rich presentation. Tom argued that to understand the formative character of research, to understand its contribution to society, we need to bring the subject of research, that is the postgraduate student, back into the picture. The West Committee policy tends to subordinate postgraduate research to its teleologies of research and university funding and management, as indeed it subordinates all aspects of university life. This might sound very abstract, to some who are not theoretically at home with what Tom was saying. But there are practical consequences from what he said, practical consequences for postgraduate administration. One consequence is that administrators, to be good administrators, must consider student motivations and student purposes in relation to research as a central aspect of the administration of postgraduate programs. We need to recognise that postgraduates increasingly manage their own education, their own formation. In my view, here is the basis for reworking the master/apprentice model.

Tom's paper was the only paper which both addressed the general issues, and at the same time tried to bring to bear on that general discussion some new theoretical concepts. He provided us with new language we can use to enrich and make more sensitive and complicated our discussion of political and policy matters. That's very important. We need to do more of this. Here again is a special role for postgraduate students and postgraduate student organisations—to strive to bring disciplinary skills to bear on our broader political discussions with each other. With stronger intellectual tools informing our political thinking, we will be able to move forward.

Overall, I thought the discussion of the West Report was very interesting. But there were some elements which it didn't cover. I came to this conference with a couple of things in mind in relation to West, things that haven't been articulated

very much. Perhaps I'm wrong, perhaps the conference is wrong, perhaps the next conference will talk about these things.

One is the crisis which now faces the traditional disciplines. I'm talking about the humanities such as history or political science, sociology, and classical studies and archaeology; and natural sciences such as physics and inorganic chemistry. They've been core parts of the education system, and in some cases of the research and innovation systems, for a long time. They're not linked so strongly to the objectives of professional training, in the manner of the generic area of business studies, and particular areas such as engineering or law.

Yet these 'non-vocational' disciplines continue to be at the base of much of what is done in professional training, not only in the science-based disciplines, but in the social science and humanities-based disciplines as well, such as education and law. We return to these disciplines again and again when we try to get to grips with more fundamental issues about professional training and professional and social life. The health of these disciplines is very important to the society.

Despite this, because they're not strongly keyed in to a credentialling process and to a vocational argument for education—in a period where vocational drivers of education are absolutely dominant in our culture and our economic system—these disciplines are in trouble. All over the country physics departments, which have been so important intellectually, are closing down. Humanities departments are turning into BA (Tourism and Hospitality) courses, or BA (Communications) without much theoretical content. I think that those applications in themselves are really important, but I'd also like to see discipline-based knowledge retained in its own right, separated from these applications. I would prefer a separate degree that was oriented to learning the academic disciplines, which was then joined strongly to those vocational applications in a second degree or second qualification framework. What we're heading for with is a situation where only the Sandstone universities are going to offer the core disciplines in a genuine form. Only the Sandstones will be able to sustain them. They'll do it for the rest of the country. Therefore that powerful knowledge in history, in English, in physics, in pure maths - that powerful knowledge which is so generative in so many ways, will be confined to the elite who can afford to, and who are competitive enough, to get into the Sandstone institutions. The rest of the student population will all be doing business studies (something). I think that's a problematic scenario. I see it happening already.

The West Committee of course is oblivious to this. In fact the whole question of knowledge and its many specificities escapes the West Committee. For a conference on research matters that's a particularly interesting point. I'll just read the relevant quote. This is my favourite sentence in the whole report:

“However, the explosion of knowledge has made impossible any continuing consensus as to the task of the university in relation to some presumed canon of privileged knowledge. There is just too

much to choose from. It's all too difficult. The purpose of the modern university therefore must be to open the mind, to strengthen the cognitive powers...

and so on, with a well-worn list of generic intellectual attributes. It seems that where you can no longer enforce a conservative canon, as Rod West might have done twenty years ago at school—Latin, Greek, natural philosophy etc.—based on a particular body of texts, then the only other alternative is the collapse of meaning, with a smorgasbord of different areas of knowledge, all equivalent to each other within the consumer market. The consumer decides. 'Legitimate knowledge' is whatever makes the consumer happy. Universities don't have to think any more and the government doesn't have to think any more about what knowledge is formative and what knowledge is needed by society in the longer term and which disciplines contribute to which other disciplines and so on. All that complicated stuff can be ignored. Before the West Report, every Commonwealth report since Murray had talked about those issues. This is the first report which is so disengaged from the intellectual life of universities that it literally says that you can't choose between different priorities in knowledge, that you can't make any distinctions.

I found that extraordinary. The other dimension that's missing is globalisation and the international realm. Of course the international realm is brought in to drive the argument that we have to introduce a competitive market within the national system, but the Report has no sense of the ways in which cultural diversity is becoming so important to us. The way in which many more students, and research students in particular, are travelling internationally, working internationally for part of their course. The way that bilingualism is becoming part of the educational agenda. The way in which global systems, systems distinct from nation-state systems, are starting to become more and more important. The way in which technology is driving us epistemologically as well as in terms of creating economic markets.

All those issues are missing, those richer issues which we need to steer through strategically, which we need to fix on in terms of strategic national policy. There's an indifference to consequences in all those areas. Instead the argument is put that the way to handle internationalisation is simply to become more marketised, to set up a competitive market domestically. (You'd better introduce free global trade now, or you'll be flattened by—free trade!). It's a trite statement of universal faith in free trade, as if that can solve all educational and social problems.

THE PHD AND THE PROFESSIONAL DOCTORATE

For me the other major theme that emerged at the conference was in the last presentation by David Liljegren. That was very effective presentation. David put forward the simple notion that if you recombine the professional doctorate and the PhD, you establish a basis for an educationally and professionally driven

differentiation between research projects and professional training, between course work and research and so on, rather than a differentiation that derives artificially from the regulations governing the distinction between PhD and professional doctorate. There's a real chance that David's idea could find its way into the policy and practice of higher education. It's compellingly simple and flexible, and it allows for freer institutional variation, and for the needs of corporate and market organisation.

I've got a slightly different fix on the problem. Given my concern about the fundamental disciplines, I would like to see the PhD centred on those disciplines, with professional doctorates used for those who are educated to doctoral level within professional faculties.

David is right to say that the boundaries have become blurred and the definitions too readily manipulated. Like many people I did my doctorate in Education, yet I did a social sciences PhD. I didn't do a doctorate about professional practice in education. I should have done my PhD in a Social Sciences setting. Yet many of my colleagues who should really have done professional doctorates in education did PhDs, because PhDs have more status in a university context. We have got the mix of roles wrong. David is absolutely right about that. His idea allows us to break open that whole terrain in a really useful way.

ISSUES FOR FUTURE DISCUSSION

There have been many good presentations. Barbara's presentation this morning, and Annette's. I haven't given sufficient time to do justice to those fine presentations, and I do apologise to those two colleagues and to many others. I'll pass quickly to providing you with my list of issues for future discussion—noting of course that that is the second item on which you're going to judge me on a scale of one to five. I'll try to do my very best.

Firstly we have to develop a new and convincing argument about what research training is trying to achieve, that takes us beyond the West Report notion that only the 44 per cent working as academic teachers or in research positions postdoctorally—in industry or whatever—are doing what research graduates should be doing. In other words we have to develop the argument about the formative and transformative capacity of research training, but in a simple and persuasive way.

Another issue from West is the research training index. We all need to be actively thinking about how that should be composed, what to do about some of the problems with the Composite research Index, such as publication counts and the limitation of research income-based comparisons between disciplines, and particularly how to handle the question of research supervision—whether it can be measured numerically, how it can be measured.

Here the fundamental thing is to move beyond the idea of customer satisfaction indexes. If that's how we measure research supervision, we'll never improve it. That kind of approach to research supervision reduces everything to a client/producer relationship, so that it becomes a matter of marketing, and of stroking the clients, rather than providing the educational context which enables the student to be the sort of self-developing, self-controlled producer of research that Tom talked about. And we need to address the effects of a single index on the flattening out of disciplines, and thus the weaknesses of a single index in making 'wholistic' comparisons between universities.

I would like to see a lot more development of intra-disciplinary comparison, rather than inter-institutional comparison. Comparisons of different schools or Faculties within the same discipline allow us to get at the specifics. The quality assurance process in Australia has been weak in the sense that it hasn't followed the UK and the US in discipline-based comparative work. Here there is real scope for bringing international benchmarking in a useful way, and allowing best practice to be a real driver. Global-level institution to institution comparisons are always very problematic because they become re-interpreted in terms of the positional market—which gives too much weight to starting advantages, and rarely gives full credit for value added—and they are open to macro-level management manipulation of the results. This takes us rather a long way from the specifics of research and research training, which quality assurance processes are meant to improve.

Another issue that West has given us is the national merit list. I think Lauchlan might be right where he says that in some disciplines you could have a national merit list. There is a limited set of homogenous disciplines like physics, where the characteristics of good students are agreed, and the individual good students are known pretty widely in the system—and there is only a small number of places operating at the top end. In most disciplines research in Australia has become simply too big to allow that to happen.

And obviously we have a battle over the number of publicly funded places in research training. That relates back to the issue I raised first about the need to mount a more convincing argument about what research training is trying to achieve.

Other issues? We need to heed the message from the Postgraduate Student Associations and from many of the good presentations from postgraduate students and others at this conference that have talked about the master/apprentice relationship. We have to unpick the fundamentals of traditional supervision, to reformulate the principles governing the relationship between staff and student.

Another issue that hasn't been discussed so much, but comes up at the edges, is the need to develop a stronger relationship between teaching and research in the postgraduate context. Here I'm going to run an argument which is almost directly

contrary to the argument in favour of greater mobility on an induced basis. One of the problems we have, in the social sciences in particular and those professional areas that relate to the social sciences, is that topics are very difficult to supervise. Topics are continually arising where there's no one on a large staff who's really well attuned to supervising those topics, either because methodologically there's no one doing what the student wants to do, or more often because no one can break open the general context of content in which that student wants to work. In that situation what we need is more supervisors not less. A student needs to be able to locate in one institution while receiving cooperative supervision (perhaps electronically) from people working elsewhere who are closer to their topic. The students shouldn't necessarily have to move. There might be good reasons for them to stay where they are. For example it might be desirable to stay with one supervisor for methodological reasons, while there is someone else who knows about the content. In other words we need to move to a more complicated way of handling supervision, and continue the trend in the last decade towards multiple supervisors, with all the protections and all the richness and additions that having more than one supervisor can provide for the whole process.

Second last. We need to identify the infrastructure needs of postgraduate students. One of the points that Tom made in his paper was that DEETYA has never investigated the infrastructure position of postgraduate students or the infrastructure needs of postgraduate students. Yet we know that postgraduate research output, postgraduate theses and experimental work, constitute on some measures a large minority, on other measures a majority of the national research effort in universities. There's an extraordinarily important part of the total research system where the issue of infrastructure has never been addressed—the infrastructure provided for postgraduates. It is a powerful point.

Finally David's idea of a single doctorate and a more flexible and more educationally directable basis for organising the respective mixtures of course work and research, the role of the professional aspects and the role of the discipline-based aspects and so on, needs to be looked at thoroughly. I suggest this would make a good topic for another conference. But not a conference in two years' time, because it's too good an idea to leave for two years. It is an idea that someone should organise a conference around rather more quickly than that.

Thank you.

POSTGRADUATE STUDIES AND RESEARCH STRATEGIES: FROM A HISTORICALLY DISADVANTAGED UNIVERSITY TO A PROGRAM OF EXCELLENCE—THE SOUTH AFRICAN EXPERIENCE

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INTRODUCTION

South Africa's transition from minority rule and apartheid to a democratically elected government requires that all existing practices, institutions and values are viewed anew and rethought in terms of their fitness for the new era. Higher education is a vitally important activity in any modern society. In South Africa today the challenge is to ensure that it can succeed in stimulating, directing and using the creative and intellectual energies of the entire population. The transformation of higher education is part of the broader process of South Africa's political, social and economic transition. (Government Gazette, p. 14).

The Ministry of Education is committed to the expansion of the higher education system, and believes that it can be achieved through:

- changing the composition of the student body to reflect the demographic realities of the broader society. The focus will be on equity strategy and success rates of Black students in general.
- focusing growth primarily in career-oriented courses.
- encouraging new learning and teaching strategies, modifying traditional models of discipline-based and sequential courses and qualifications with a flexible credit-based system.
- expending enrolments in postgraduate programs at the masters and doctoral levels to address the high-level skills on which the National System of Innovation will depend and provide for the needs of the academic labour market. The University of Qwa Qwa responded instantly to this with vigorous programs and innovations. First, a short overview of the African and South African tertiary situation.

AFRICAN UNIVERSITIES: THE WAY FORWARD

Within Africa, high population growth rates and increased access to education have boosted the social demand for higher education, leading to rising university enrolments and a proliferation of tertiary institutions.

Universities have also changed, becoming mass-based and diversified institutions operating under severe financial constraints.

Rising graduate unemployment, inadequate performance on the job, and weak research production combine to bring the relevance of universities to national needs under growing public scrutiny. Relevance is understood to include educational choices within the university that are in tune with the national economy and responsive to the prevailing labour market; appropriate curricula; capacity for critical and innovative thinking on issues of national importance; the transmission of essential professional and cultural values; institutional processes and behaviour that equip graduates for leadership in society; and adequate regional, gender and ethnic representation in the composition of staff and students (Saint, p. 2).

To address these concerns, African nations must first answer three questions. What kind of university do we have? What kind of university do we need? What kind of university can we afford?

The answers will differ from country to country in accordance with national circumstances, culture and priorities. With varying emphases, a general consensus in Africa holds that its principal higher education issues are quality, relevance, finances, efficiency, equity, and governance.

Efforts at higher education reform stand little chance of being sustainable unless they are grounded in broad public consensus. Failure to invest in public education and consensus-building prior to the institution of policy changes can have high costs in terms of public reaction, student protest, and damaged working relationships amongst key actors.

If Africa's universities are to be stabilised and revitalised, *universities themselves must seize the initiative*. One way to do this is through the development of an updated university mission statement. This mission statement should focus integrated attention on educational quality, finances, access, curriculum, distribution of students among the various disciplines, staff development, research, governance, and management. A second, less direct path lies through the promotion of higher education research. At present, relatively little analysis of Africa's higher education needs is carried out by Africans. If needed reforms are to be appropriate and lasting, the talents and experience of African scholars must be brought to bear. More important, the process must begin immediately as the African higher education crises is already well advanced.

Conclusions are *inter alia*: undertaking an institutional self-study that updates the university's mission statement; diversification of their financial bases, particularly through cost-recovery for non-academic services; becoming more entrepreneurial to encourage quality performance and management efficiency; professional management at all levels (staff training, strategic hiring and computerised management information systems). *Universities must invest in themselves*

(allocations for education materials, library acquisitions, research, staff development etc.); managing the social demand for higher education is best achieved by expanding access through a differentiated higher education system, composed of public and private institutions with diverse missions, that offers students a range of choices and study regimes.

“If you think education’s expensive, try ignorance” (Advertising slogan, USA. 1988).

The subject of education contains a simple and profound truth: the quality of a nation is a direct function of the education it provides (Venter, p. 237). All of the emerging countries who have enjoyed high achievement threw massive resources into education.

In South Africa education takes the biggest slice out of the national budget. Yet this country has massive structural, organisational and attitudinal problems to overcome in education before its schools, colleges and universities can become the driving force of the nation’s success.

NOTES ON SOUTH AFRICA’S TERTIARY EDUCATION

A profile

From a global perspective, South Africa has a lot of catching up to do with the world. From a domestic perspective, South Africa has lot of catching up to do with itself. For not only does South Africa significantly lag behind world norms in education, the gross disparities within South African education are of the biggest division of its people. Only 1 per cent of South Africans have a degree, and 3 per cent have a diploma of some kind.

Verwoerd, in explaining his philosophy for Bantu education declared: “...there is no place for him (the native) in the European community above the level of certain forms of labour...” (Venter, p. 239); that is, system that will damn the futures of millions of South Africans for at least a generation to come. Will South African bring anything meaningful to the table in the knowledge-driven economy of today and tomorrow?

Massification, restructuring, transformation and Africanization—all the cliché of the new order were brought together under one ideological and bureaucratic umbrella. It has been an exercise conceived in cynicism and short-sightedness that education in South Africa will not recover from in the next ten years, and which will send dull reverberations through the economy for even longer.

Centres of higher learning

The principle of top slicing was earmarked for the country’s universities. Deep cuts will be inflicted on what are now known as the ‘historically white’

universities. These universities fought long battles under the banner of academic freedom to admit who they wanted and, to a great extent, defeated apartheid on their campuses long before it was vanquished from society at large.

Ironically, they will now pay the highest price as ‘resources’ are diverted to the ‘historically black’ universities—of which Qwa-Qwa University is one.

The reassignment of resources has been couched in the terms of the call for the transformation and Africanization of tertiary education. The South Africa Survey (1995/96) reported on the four daunting challenges faced by the country’s institutions of higher learning:

- (i) shrinkage of resources as funds are diverted to other educational sectors;
- (ii) demand for places from inadequately prepared school leavers (Crause, 1998);
- (iii) growing numbers of students unable to pay fees or support themselves and
- (iv) demands from students for ‘democratization’.

In the face of rising turbulence and uncertainty the universities have experienced, unsurprisingly, an exodus of brain power as dispirited senior academics have taken up careers elsewhere. One South African university now spends more money on catering than it does on research, and in another unskilled manual workers earn more than junior lecturers.

The future of South Africa’s universities does not call for deep divination. The government will succeed, modestly, in its goal of greater opportunities for the masses through the extension and elevation of the previously underprivileged institutions. There is doubt in the sense it will not be able to provide candidates up to the requirements of globalization and world competition. There is a real possibility that the extension of opportunities will be achieved at the expense of an overall levelling, and a decline of standards in the universities previously of the highest standing. This means an erosion of centres of excellence, and the way for the advent of private tertiary education will be opened. Mechanisms of elitism will kick in to separate again the privileged class from the growing masses of the underdeveloped.

Is it within the immediate ability (capacity, potential, faculty or potency) of the Uniqwa management and staff to reverse this deteriorating academic and/or social condition? Our next focus is on Uniqwa’s programs for excellence (Venter, p. 245).

UNIQWA

Historical survey

In 1975 the Qwa-Qwa Homeland Government appointed a committee to investigate the possibility of University Education in Qwa-Qwa, a rural and mountainous region. In February 1982 classes in 17 subjects belonging to the

Faculties of Arts, Commerce and Administration and Education started. A theological faculty was added and brought the number of lecturing staff to 25 and the number of students to 225. In 1983 the five basic Science subjects were added. The number of students increased to 426. Student numbers increased to 3,200 in 1996 and decreased to 1,980 in 1997.

The goal of the establishment of the campus was to serve working students for the immediate future after 1982. For 16 years it was a teaching university with evening lectures. Too often some of us became discouraged with regards to our ability to contribute to contemporary scholarship. This is especially true for those of us who have PhD's and are working at small institutions of higher education, which place great emphasis upon teaching. Because of the often heavy demand of teaching responsibilities and the lack of resources for scholarship during the previous institutional dispensation, we found it difficult to make significant contributions to our academic disciplines. Thus, emphasis ends up being placed more upon teaching than upon other scholarly pursuits (Ferreira, 1998, p. 1.).

Research strategy, policy and framework for the Qwa-Qwa Campus

Statement of commitment

Uniqwa (University of Qwa-Qwa) accepts the fact that it cannot be a centre of academic excellence without attaining lofty heights of research excellence. Also, Uniqwa recognises that research excellence will positively influence teaching excellence and the quality of service rendered to the community in which it is located. In addition, Uniqwa is aware that staff development, postgraduate training, appropriate and relevant curriculum development, innovations and qualitative teaching training as well as people-orientated community service have their roots firmly embedded in research excellence. Uniqwa therefore accepts the philosophy that research excellence should be the pillar which should uphold and sustain academic excellence in the institution and it supports the principle that research by staff members and postgraduate students should constitute an important and integral part of the academic agenda of the institution. This will require enhancement and reorientation of higher education research capacity as well as development of new organisational interaction.

Hence, the executive management at Uniqwa is determined to promote and sustain research excellence on the campus and to nurture an intellectual climate and environment which will stimulate academic staff and students to embrace the culture of research.

Application

The following pledges by Executive Management is in place: most have been instituted and the others are in the process of application. (This process, from its initiation to application stage, is a mere 6 months old!).

- i) Allocate at least 5% of the annual subsidised budget to research.
- ii) Make undertaking of active and qualitative research a condition of service.
- iii) Actively promote research excellence among staff members and establish an enabling environment under which such an excellence can be achieved.
- iv) Undertake innovative staff development program which will develop and continuously improve research capability and post-graduate mentorship among the staff members. (Ferreira, 1997a, p. 6).
- v) Develop the capacity of departments and faculties to undertake excellent research and thereby promote multidisciplinary, transdisciplinary and transinstitutional research endeavours.
- vi) Utilise the postgraduate school of Uniqwa to lay strong foundations of research culture and excellence among young researchers who want to make a career as academics.
- vii) Reward and recognise excellence in research among all categories of staff and postgraduate students; ensure that, as much as possible, all incentives for academic staff members rest on research performances.
- viii) Ensure that a positive research evaluation and attainment of academic excellence constitute major prerequisites for academic advancement and appointment at Uniqwa.
- ix) Continuously search for and select among its staff members research entrepreneurs and innovators and provide adequate facilities and opportunities which will enable their full utilisation for the advancement of scientific knowledge.
- x) Continuously improve the knowledge services at Uniqwa so as to enable the staff to have access to appropriate and current information on research achievements and resources on their fields.
- xi) Publicise research achievements at Uniqwa and actively engage in the search and competition for institutional, faculty and departmental research grants.
- xii) Actively promote interactions with national and international funding agencies at institutional, faculty or departmental and individual staff levels.

A pie in the sky? Not at all! The following reports are an indication of the pulling into operation of the programs of excellence in all facets of the academic life on the Uniqwa campus (Dipeolu, 1997a).

Programs of excellence

Research administration

Within the very near future there will be a RAO (Research Administration Office currently from the vice-principal's office) which will be headed by a DOR (Director of Research) and assisted professionally by a grants officer/linkage facilitator and administratively by a finance officer and a secretary. (The functions of the RAO and terms of reference of the DOR are in place).

University Research Committee

This committee is functional at the moment from the Vice-Principal's office and advises executive management and the senate on research policy matters, and to oversee the implementation of the University's research strategy.

There will be a research committee in each faculty and to be chaired by the DOR. The Faculty Research Facilitators are already in place and functions of Departmental Research Coordinators are executed by HOD's (Heads of Departments).

Incentives for research excellence

As a motivation for staff members to embrace research culture and aspire towards research excellence the following incentives are available for staff members and postgraduate students:

- i) senate research grants—it constitutes the main internal research grant which is accessible to rated staff members in order to enable them engage in qualitative research; the allocated fund is disbursed as follows—postgraduates students research allocation, 20% (masters and PhD)—1st timers fund, 35%—established researchers fund 30%—senior established researchers fund, 15%;
- ii) grants for local and overseas conferences;
- iii) research fellowships;
- iv) awards for research excellence;
- v) university scholarships, promotions and salary increments; visiting professorships.

Any staff member or postgraduate student who wishes to receive any of these incentives in any year will subject himself/herself to rating assessment. There is an allocation for two annual awards for research excellence; i) young investigators awards and ii) established investigators award. (Awarded in December 1997 for the first time.)

Postgraduate School

The Postgraduate Board will, inter alia, promote oversee and coordinate postgraduate programs. An acting dean for postgraduate studies is nominated and he will start at the middle of second semester 1998 with coordination and policy-making. One of the most important functions is to produce annual postgraduate reports and disseminate them widely both nationally and internationally. Course Masters degrees will be introduced for the first time in 1999 (Dipeolu, 1997b).

Four Year degree program and course system

ECS (Executive Council of Senate) approved a recommendation that Uniqwa should commence with a 4 year degree program with the intake of the 1999 session. Courses are prescribed for each year up to the 4th year when the student will graduate with honours (Dipeolu, 1998a).

Departments and postgraduate programs

Senate approved, at a meeting in December 1997, of new regulations governing postgraduate studies at Uniqwa and the responsibilities of various important role players. Professors and staff with doctorate degrees should submit plans for involvement with postgraduate training in their departments. (Dipeolu 1998b).

Staff development program

The staff development program approved by ECS/Personnel Committee during late 1997 is now being vigorously implemented. The first compulsory staff development seminar were held at the end of January 1998. In 1998, several tutors will be appointed into departments and the majority of them will be our own graduates. In order to pursue the staff development program vigorously, each of these tutors must be trained up to PhD level.

Faculty seminars

Faculty seminars will replace University seminars which was introduced during the second half of 1997. Staff and postgraduate students are invited to present their field of specialisation.

Inaugural lectures

Inaugural lectures have to take place this year. There should be at least one per semester.

Special opportunities for scholarship at Uniqwa

Scholarship of discovery is what we refer to as research. The scholarship of application asks how knowledge can be responsibly applied to consequential problems. Finally, the scholarship of teaching refers to the effective communication of the work of others in a way that transforms and extends knowledge as well as transmits it.

In many ways Uniqua is ideally suited for the work of integration and application. Because of our geographical location we automatically look for ways in which to make connections between community concerns and the academic disciplines and programs in which we work. Thus, Uniqwa scholars would do well to focus upon

how they might contribute through the scholarship of both integration and application.

Community outreach

One of the main stumbling blocks to national development in Africa is the failure by its academics to translate their intellectual competence into social relevance, hence the intellectual neo-colonialism that is widespread in Africa. (Prof Muyuhda Mwanalushi)

The African philosophy of "ubuntu" is,

"I am because we are. I can only be a person through other"

The community is essential for success. (Prof Lovemore Mbigi)

Uniqwa has to derive inspiration from and locate its research within the African experience, and to address problems facing the African people. Our communities are undergoing rapid social change and we have to address the problems of economic development, urbanisation and industrialisation to rural populations. At a community outreach seminar on 4 February 1998 at Uniqwa the following involvement programs were discussed.

Youth advancement

A winter-school during July 1998 where a *capita selecta* of subjects will be taught to any number of interested members from the community (Eastern Free State).

School of science

Pre-university access Saturday School of Science at Uniqwa. The purpose is the consolidation of high school mathematics, biology, chemistry and science by treating some of the pre-requisite topics needed for first year courses. A second leg of the program includes assistance to students who failed final high school year for supplementary examination.

Democracy support project

Joint projects are envisaged with Joint Centre for Political and Economic Studies and University of California to strengthening governance on local government level.

Steering committee

A steering committee was elected to coordinate the existing and future projects. The composition of the committee includes a recognised community leader, community representatives (farmer, business manager), director of education (Free State), social service representative and Uniqwa representatives (Dipeolu, 1998c).

Sport academy at Uniqwa

We are within weeks of establishing a satellite academy of sport in the Eastern Free State. The establishment holds the following benefits to the community: More opportunities for young sports men/women, coaches, technical officials and sport administrators from historically disadvantaged societies; quality coaching free of charge and active participation in building representative sporting codes in S. A. (Rademeyer, 1998).

Integrated programs

The following programs are academically orientated and are focused on the community. There is application of knowledge and interaction between the disciplines and benefits the broader community.

Faculty of Natural and Applied Sciences

The following FRD (Foundation for Research Development) thrust were allocated to departments in this faculty (to the value of ±R 500 000) ethnobotany, polymer chemistry and veterinary parasitology. A new program includes training in agricultural science—concentrating on small scale commercial farming, and new courses are also introduced in biochemistry, molecular biology, microbiology and statistics. Master's registrations are eminent for chemistry, biology and zoology.

School of Eco-social Science—Department Geography

In line with the National Qualifications Framework the new curriculum will be based on an integrated holistic human resource empowerment process, with the aim to join knowledge and life skills into an effective training system that is responsive to the economic, social and political needs of the students and the community. (Van Zyl, 1997). It is a four year career orientated degree in Tourism Studies complemented by courses in environmental studies. A new program for Developmental Studies is in the planning stage.

Department Sociology: Co-operative career readiness program

The department is in discussion with State Departments, and other prospective employers, exploring the idea of forming strategic alliances in preparing graduates and more specifically post-graduates for their chosen careers. This will entail additional skills training programs on graduate level and the placement and development of suitable candidates in the workplace. It means the empowerment of the candidate in terms of career related skills.

Audit of indigenous technologies project

The objectives are to identify, describe and catalogue a wide range of indigenous technologies, their recipe and socio-economic relevance in the Free State; to broaden the training, experience and provide of our cultural heritage to Qwa-Qwa

students; to identify and understand rural opportunities relating to indigenous technologies and the housing of the provincial indigenous technology audits in historically disadvantaged universities. The program is supported by the Free State Government and National departments of Arts, Culture, Science and Technology (Mudzanani, 1998).

The Centre for Multidisciplinary Research and Appropriate Technology Development

The mentioned Centre is being planned for Uniqwa to provide short-term and long-term solutions to socio-economic challenges. On the short-term, the Centre would produce the critical mass of core-scientists which would constitute the base from which multidisciplinary research at Uniqwa would spring. On the long-term, the Centre would serve as the base for the response of Uniqwa to those societal imperatives which can be addressed significantly through focused applied multidisciplinary research or through development of appropriate technologies (Dipeolu, 1998d).

Annual day of excellence

A successful day of excellence were held during December 1997—a first. Lecturers, researchers, departments, faculties and management were honoured for their work, initiative and vision during the 1997 academic year.

CONCLUSION

There is no doubt that higher education reforms in South Africa can be successful only if they are grounded in broad public consensus. The Historically Black Universities (HBUS) must transform themselves from 'Bush Colleges' to Centres of Excellence while the Historically White Universities must utilise their facilities more effectively by empowering all races to achieve excellence. The University of Qwa-Qwa, within this context is an HBU which has shown determined efforts to transform itself from mediocrity to excellence. Research has become the driving force of the other functions of the institutions, that is, Teaching and Community Outreach. Several forms of research support have been established and some key institutional incentives to staff have been linked to achievement of research excellence. Undergraduate teaching is being more effective and innovative programs are being established. New postgraduate regulations and guidelines have been put in place and post-graduate teaching and participation have become mandatory for all qualified senior staff. Accelerated staff development program up to doctorate level has been inaugurated and in order to further enhance excellence all staff without doctorate degrees have been given time limit by which they should attain them. The University is relating itself to a greater level with the communities in which it is located through the establishment of various community outreach programs which are directed towards improving the social

life and economic status of the people. Success of this endeavour is assured by making the communities institutional partners in the selection of appropriate outreach programs.

As we struggle on the path of excellence, we are not unconscious of the difficulties ahead. It is not easy to change habits which had been installed and inherited for decades. Transformation for whatever purpose will have its own casualties. But because our cause is noble, the Qwa-Qwa University community believes it will succeed.

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SUPERVISING POSTGRADUATE STUDENTS: SOME INTELLECTUAL PROPERTY PERSPECTIVES

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ABSTRACT

Traditionally, postgraduate supervisors have focused on discipline and pedagogical issues in the course of their work. The research process, with its focus on mental endeavour also raises significant intellectual property issues. These add a new dimension to supervision practice, especially ensuring that supervisors and students understand the problems and respond appropriately. This paper addresses issues in copyright, privacy and confidentiality as they arise in the different stages of a project—the ‘ideas’ phase, data collection and analysis and the final output. It examines some current practices and offers suggestions for responding to the legal principles. It concludes that a serious response to intellectual property issues in postgraduate supervision means that new initiatives are needed to ensure that supervisors are confident in the area and enabled to assist students develop as capable researchers in their field.

INTRODUCTION

The tertiary sector in education has been characterised by massive change in recent years and this change has not bypassed postgraduate study. Increased participation by both full time and part time students at this advanced level has brought problems, particularly increasing drop out rates and longer completion times and also a shortage of qualified research workers and experienced supervisors (Moses, 1992).

In these circumstances, the role of the supervisor is critical, (Powles, 1992) as is the training, support and availability of professional development resources relating to that role. The literature (Moses, 1992) and discussion with our supervisors indicate that key issues for supervisors are of both a discipline and pedagogical nature, and revolve around topic selection, supporting the student, developing thinking and writing skills and resourcing.

There are other matters which also impact on the research supervision process. From a legal perspective, the supervision relationship and participation in a postgraduate program raise broad legal and particularly contractual obligations (Stacey, 1998). The general trend in consumerism manifests itself in student

expectations of high program quality. In both New Zealand and Australia, these expectations are supported by legislation¹, which creates a foundation for a right of action against educational institutes for misleading conduct (for example, statements in brochures about facilities) and in cases where programs fail to meet (merchantable) quality and fitness for purpose standards.

More narrowly, from a legal perspective, postgraduate study occurs in an intellectual property environment. Research, both in terms of its process and outcomes, revolves around ideas, methods and information and often results in an innovation ie the creation of something new. The law of intellectual property is concerned with “the protection of the output of human intellectual endeavour” (Brown and Grant, 1989, p.1). Many of these outputs will use or result in or be associated with a tangible property—for example, a book and its copyright. However, intellectual property law concerns itself only with the co-existing intangible property (the copyright). This kind of property is justified through its acknowledgment in the legal system and therefore its protection operates as a reward for creativity. This is an incentive for innovation and that has proved to be of great benefit to society².

This paper attempts to explore some of the main intellectual property issues arising in research supervision. It focuses on the areas of copyright, privacy and confidentiality. New Zealand and Australian principles are somewhat similar in these areas and reference will be made to both in the paper. By necessity, an overview is presented. It does not address issues relating to patents, biological rights and name and design protections. The paper will look first at the preliminary or ‘ideas’ phase of a supervised research project, then consider the data collection/ interpretation/analysis phase and, lastly, the implications arising from the final output. It also discusses the legal implications of various postgraduate research supervision practices and offers some suggestions for responding to the legal issues raised.

THE PRELIMINARY ‘IDEAS’ PHASE

At the beginning of the research project, the student will be selecting a topic. There will be a considerable interchange between the supervisor and the student as various ideas or concepts will be formulated, explored, and evaluated for currency and feasibility. Some may be highly original, inspiring and offer considerable opportunity for major contribution on an issue of current interest. From a developmental and evaluative point of view, many programs encourage group or peer critique of these ideas, either by other student or supervisors.

At this early ‘ideas’ stage of a project, protection may be available through the principles of confidentiality. While the idea is not to be regarded as a piece of intellectual property at this stage, in both New Zealand and Australia, confidence laws provide an important adjunct protection (Katz, 1995; Richardson and Stuckey-Clarke, 1996). It is not necessary for the parties to have a contractual

relationship, although that would be so in the case of any fee paying student. The obligation is also recognised on equitable grounds on the basis that “he who has received confidential information, shall not take advantage of it”.³

There are three requirements for establishing a legal obligation of confidence:⁴

Firstly, the information which has been disclosed must have a confidential character. This means that it must be private as opposed to widely known. It needs to have some originality but it need not amount to an invention. This is determined according to the conventions and practice of the area concerned and here what would be relevant would be the particular research field and any guidelines issued by the institution. If the idea was in the public domain, ie published or discussed already, then it is not confidential—for example, if the supervisor had already raised the project concept in individual or group discussion or in some departmental forum.

Secondly, the information must be given to the other party in such a way or in such circumstances that s/he knows or should know that it is confidential. The most straightforward way to ensure this is to state ‘this is confidential’ at the beginning of any discussion, either with a student individually or with a group. If there is writing, for example, emails, a project descriptor, or a proposal, then again the word ‘Confidential’ at the beginning is sufficient. As an alternative, the postgraduate guidelines for the institution or department could also include a statement to this effect.

If none of these approaches is used, then where there is a contract, if the nature of the contract is such that it is really only workable on the basis that certain information remain secret, then this confidentiality is implied (Holoak & Torremans, 1995). Whether this is the case or not depends on the particular institution and their view of the nature of the supervision relationship, ie master and apprentice, facilitator and learner, or mentor and beginning professional. However, it is my view that it is better practice to treat confidentiality explicitly. Students then feel less apprehensive about sharing their ideas, they benefit from wider critique and increased collegiality, and learn a useful protection strategy.

Thirdly, the information must be disclosed or used in some unauthorised way to the detriment of the other party. This would happen if a supervisor, or other student used the idea for their own research. A plea that the subsequent use was coincidental or subconscious will not be viewed favourably by the courts. The kinds of things which are accepted and recognised as a detriment are quite broad and would include distress and any loss of opportunity, apart from any commercial or monetary loss. This is especially the case if the plaintiff wants an injunction (an order to stop the other party from proceeding) as opposed to damages (a sum of money in compensation).

The significance of the confidentiality principle as a protection for the early development stages is illustrated in *Fraser v Thames Television*.⁵ Here, the idea

for a television series was presented and discussed with Thames Television. No written documentation was ever given to television company. Ultimately, the idea was not taken up by the television company who then went on to produce the highly successful series 'Rock Follies' which was based on the same idea. The court held that an oral idea could be protected provided that it was sufficiently developed, but that this did not require writing.⁶ In fact, protection in both countries may be available for less developed ideas in that where it is proved that the germ of an idea has been used as a springboard for the confided party's innovation, then that will also amount to breach of confidence.⁷

The case also illustrates the point that ideas are not protected under copyright. As a kind of intellectual property, copyright protects against unfair plagiarism or copying without consent of the owner (Brown & Grant, 223). It is a fundamental principle in both countries that what is protected is the *expression* of the idea in a permanent form and not the idea itself. This means that it is the methodology, arrangement and communication of the idea that is protected. In the case of a written work, it is aspects like the structure, wording, and layout that are protected, not the actual ideas expressed. Where a student for example, makes a written descriptor of the idea or emails her or his supervisor about it, the copyright can protect the physical 'getup' of the idea, but not the idea itself.

Legal principles indicate that there is a need for understanding of these issues by both parties. This may be included as part of a supervisor's training program and/or as part of any orientation of postgraduate students. While it is a legal obligation, discussion with supervisors indicates that for many it is already ethically part of their own practice. Where an organisation values a collegial and collaborative approach to research, and recognises the value of critique and feedback, both for students and staff, then strict confidentiality interferes with this. At the same time, a fear that an idea may be appropriated will stop the free discussion of project ideas in the early stages. Understanding of the confidentiality principle can start the development of postgraduate guidelines that ensure the benefits of wide discussion and also protect a student's ideas at this early stage.

THE DATA COLLECTION AND ANALYSIS PHASE

The student will be involved during the research process with the collection of a variety of material. This will generally include primary data which could range from survey information, interviews, observation material and documents. At the same time, as the student resorts to the literature, reference will be made to material that has already been published, ie secondary data. As the project proceeds, primary and secondary data will be analysed and compiled in tabular and other forms, interpreted and evaluated and further notes and materials of an intermediary nature produced.

Ethical issues relating to the collection of primary data from human subjects are generally addressed through an institution's research approval procedures. However, it is worth noting that there are also legal provisions relating to privacy where data is collected about humans. The Privacy Act 1993 (NZ) and the Privacy Act 1988 (Aust) establish legal rules for the collection, storage and use of personal information. They are both based on the premise that information about a person belongs to her or him and not to the collector or holder of such information. In New Zealand, the act is applicable to any person or organisation (including private businesses and organisations) who collects information about an identifiable person, and there are no specific exemptions for research⁸. It applies to all kinds of information—not only material stored on computer, but also hand written notes, tapes, photos, fingerprints and tissue samples. In Australia, the act is applicable to all bodies established for a public purpose or established under a commonwealth statute. This would clearly include all state funded tertiary institutions, and may also include privately funded degree granting institutions as well.

Both acts contain quite specific provisions about the sourcing of personal information (directly from the individual), its collection (only after the notification of specified key facts), storage (must be secure), use (only for the purpose collected), and disclosure (disclosure only for the purpose for which it was collected)⁹. They also provide for rights of access and correction. There are a number of exceptions, for example, consent, public health or safety, and public domain material. Some of these are very helpful to the research process—where the information will be used for research purposes and/or in a form where the individual will not be identified—in the case of the collection, use and disclosure principles. These exceptions can potentially be very useful because they cover a much wider range of situations than those in most Codes of Ethics—for example, where a student collects personal information which indicates that a crime may be committed, then the law allows disclosure if there is an issue of public safety.

Many of these matters are covered in research Codes of Ethics. Even though these have been in existence for some time, they would have no special status in privacy law in New Zealand and Australia, and would not necessarily be regarded as complying in the case of a complaint to either country's the Privacy Commissioner. It may therefore be opportune for all tertiary for institutions, through their Privacy Officer¹⁰ or otherwise to review their Codes of Ethics. In New Zealand now, there is a trend for universities to agree on a common ethical approval format and process for research.

Where reference is made to secondary material, either the student or her or his supervisor will want to make a copy of a journal article, conference paper or perhaps a chapter of a book. On the face of it, this is unauthorised copying. However, the law allows limited amounts of this unauthorised copying through the fair dealing exception. Here, as a matter of policy, a balance is struck between providing incentives through protecting the rights of the owner of the copyright

(the author or publisher) and enabling further innovation by the research student through use of the copyrighted material.

Copyright law in New Zealand and Australia do not allow unlimited copying for the purposes of research or private study. Copying must amount to 'fair dealing'¹¹. Neither piece of legislation unfortunately defines the concept of fair dealing (and neither does any other legislation) but it does indicate the criteria which the courts will take into account in determining what is fair dealing. These include the purpose of the copying, the nature of the work copied, whether the work could have been obtained within a reasonable time at an ordinary commercial price, the effect of the copying on the market for the work, and where part of a work is copied, the amount and substantiality of the part copied in relation to the whole.

These fair dealing criteria mean that supervisors should give some consideration to their practice and their advice to their students. In the case of a recently published report of 10-20 pages which is currently selling for \$25.00 at local bookshops, it is difficult to see how copying the whole report could be justified as fair dealing. Copying can however be justified when the material comes from an overseas journal or a book that is no longer in print and it is a single chapter that is copied.

The provisions of current copyright licenses which are granted to tertiary institutions may overcome some of these hurdles. While these allow multiple copies for a wide variety of educational purposes, they do not apply to all kinds of material—for example, in New Zealand, they do not appear to cover newspapers, printed sheet music, maps and charts, house journals and other free publications, and illustrations or photographs not found in books or journals. In some disciplines access to this current material for research and thesis purposes is very important. A common supervisor query relates to 'out of print' or unobtainable work. The licence provides that if the supervisor contacts the licensing authority and it is satisfied that the work is unobtainable then a copy of the whole work can be made.

Where the copying does not appear to be fair dealing and/or it is not covered by the copyright licence, then students need to approach the owner and ask for consent. This is preferably done through letter, which gives a permanent record of the arrangement. In my experience, this will rarely be denied. Material that is acquired through interloan is copied under its own copyright provisions.

Research material that is obtained from web sites on the internet also raises copyright and fair dealing issues. It is often said that the act of putting information on the internet creates an implied license to copy. This is a highly optimistic interpretation of the law. Some sites clearly give consent for their material to be copied, and these pose no problem. However, where there is no explicit consent, students need to obtain this from the site controller, or reliance must be made on the fair dealing provision. This situation has yet to be considered by the courts.

However, given that the email address of the site master is always posted on the site and the speed and ease of email communication, it would be interesting to see if a court would find 'fair dealing'. 'Netiquette' discussion leans heavily in favour of requesting permission. An easier alternative for the supervisor is to give the student the web address and to encourage her or his own informed and independent treatment of the material.

The fair dealing concept is today further challenged when a postgraduate thesis comprises the creation of a work of art which is montage in nature. Fair dealing is also a major issue in the case of a multimedia work, film or video. In all cases, the work comprises the copying and use of the work of other authors who will have a copyright in the work. In the case of a multimedia work, this is exacerbated by modern technological developments, for example a scanner which enables a copy to be made instantly and imaging software which enables digital manipulation of the image. A further issue with some students when dealing with internet materials or the use of images in multimedia or other applications is a lack of awareness of author's rights and a readiness to pirate material in an unthinking fashion. Supervisors need to extend their discussion from the treatment of materials in books and journals to those of the new technological mediums.

Where the work is regarded as research then fair dealing creates some latitude and copies can be made for montage and multimedia work. A factor to be considered in deciding whether there is fair dealing is the availability of photobanks and digital banks of images which can be purchased. However, in the case of artworks, there is a further issue which affects fair dealing copying of the materials used. The outcomes are often exhibited and then sold. Commercial exploitation of the resulting work would probably not be covered by the fair dealing exception. New technology, especially in the computing and communications software is now issuing challenges for copyright principles which were developed in the eighteenth century. It remains to be seen whether the law is sufficiently robust to respond and continue to balance between the competing needs of owners and those that would create further, using the property of others as a base.

THE FINAL OUTPUT

Traditionally this culminates in a thesis. In some programs, a work of art, film or video or multimedia work may be produced. It may be that the student has written a number of conference and journal papers along the way. In some cases ancillary outputs might include software programs which have needed to be written to process data.

All of the kinds of outputs mentioned in the previous paragraph are recognised in intellectual property law. In each case, as well as the physical property, (for example, the book itself), there is also a second property in the resulting copyright. The last 20 years, with their emphasis on the increasing use of both

technology and information, have seen an enormous rise in the value and significance of intellectual property. For this reason it is important for institutions to ensure that ownership rights are recognised and understood by postgraduate students and supervisors.

Copyright law in both countries provides¹² that a copyright accrues to the author of a literary work (a book, thesis, paper or journal article), the author of an artistic work, and the producer or maker of a film or video. In the case of software, this is regarded as a kind of literary work with ownership of the copyright for the program writer. Where the work has been produced entirely by the student then she or he will own the copyright. This will last generally for 50 years¹³ and entitle the owner to control copying of the work and to income from any commercial use of the work—for example, the sale of the book or distribution rights for the software. Owners of copyright also have moral rights under the copyright law. These include the right to be named as the author, to object to derogatory treatment of the work and to false attributions and misrepresentations.¹⁴

Where other parties are involved, then there are significant implications for the future of the work and the rights of the student to it. If there has been funding for the research, especially external funding, then the other party may have contracted for exclusive or part ownership. This can create difficulties initially for the assessment and public dissemination of the thesis. Where there is exclusive ownership of the work by the funder, then the student no longer has any control of the work. Beyond the thesis, this can prevent publication or further research arising out of the project. This is especially so if the funding agreement requires confidentiality as well.

Where the student is an employee, and the research relates to and is funded by the employer then the law provides that where the work is done “in the course of employment”, then the output belongs to the employer. Given the increasing popularity of work related projects, especially in vocationally oriented masters degrees and professional doctorates, care needs to be taken to ensure that all outputs can remain with the student if possible, especially those which are to be assessed. It would be advisable for the student and her or his employer to state this in an agreement made before the beginning of the project. Programs need to consider how they will assist their students here. A standard form agreement could be useful. It may be part of the supervisor’s role to assist with the negotiation of a student’s rights both with the employer and the institute’s postgraduate subcommittee.

Where a student and a supervisor co-author a paper or other work then joint copyright is provided for in copyright law. Questions often arise as to what amounts to co-authorship. In law, this is viewed as a collaborative activity. However, it does not apply to situations where a person suggests a subject matter or idea, makes minor alterations, or provides helpful criticism and advice about the structure of the work (Lahore, 1995). At this level, few supervisors would

claim co-authorship, but other situations could arise where there is substantially more involvement and the result less clear. It is good practice to expressly discuss with a student when co-authorship is going to or can happen. It should not be something that appears at the completion of a paper.

There is also further reason to be explicit about co-authorship. In law, where there is a relationship which is characterised by one party having dominance over another, then the law may consider either that there is undue influence in fact or may presume that undue influence has occurred. The latter has been found in situations involving a guardian and ward, parent and child, religious adviser and disciple, and the former in the case of a young and inexperienced musician and business manager (Burrows, Finn Todd, 1992). While postgraduate supervision has a long and honourable tradition of the master apprentice relationship, it is precisely this relationship that the law would view as a situation of undue influence. Other models of this supervision relationship have now developed. However, regardless of how one might view the supervisor student relationship, it generally displays characteristics which make it analogous to cases above. In particular, the role of the supervisor in assessment and in the general development of the work makes it difficult not to find a degree of dominance, even where it is of a benevolent nature.

Where joint work will occur, the supervisor can protect herself or himself by ensuring that the student has received some kind of independent advice. In many collaborations this will not be an issue, but in some programs where there is potential value in the joint work then faculties may wish to develop a structure and guidelines for independent advice to avoid allegations of exploitation and unethical behaviour. This would include a statement by the student that they had had the opportunity to discuss the collaboration with, for example, another supervisor, that they understood the implications of the joint project (e.g. acknowledgment, contributions, ownership, revenue) and were satisfied with the terms of the arrangement.

Many institutions will have intellectual property policies which may cover some of these issues. It is common for such policies to state that intellectual property created by students will be the property of the students. Where an institution has made a resourcing commitment which is greater than usual, then, it may wish to take a share in the intellectual property outputs. These policies need to be communicated to postgraduates students and their implications for a student's own work to be discussed by the supervisor.

CONCLUSION

Consideration of the intellectual property issues associated with research adds a new dimension to postgraduate supervision practice, and if taken seriously, extends the role and duties of the supervisor. Intellectual property is a difficult area, both conceptually and in terms of its implementation in a research program.

Postgraduate supervisors therefore need to have access to staff development resources in this area in order to be able to develop their student's learning, and confidence in their own supervision practice.

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NOTES

1. In New Zealand, the Fair Trading Act 1986, and the Consumer Guarantees Act 1993; in Australia, the Trade Practices Act 1974.
2. See Holyoak, J. & Torremans, P. (1995) *Intellectual Property Law*, Butterworths, London for further justification on economic and other grounds.
3. Denning, L. in *Seager v Copydex Ltd No 1* [1967] RPC 349, 368.
4. *Coco v A N Clark (Engineers) Ltd* [1969] RPC 41
5. [1983] 2 All ER 101
6. In Australia, a similar case was decided in the same way in *Talbot v General Television Corporation Ltd* [1980 V12 224], involving ideas presented in a written submission.
7. *Seager v Copydex* [1967] 2 All ER 415
8. In New Zealand, the Privacy Commissioner may approve industry specific codes, but as yet this has not occurred that significantly, and not in education
9. In both countries, in Information Privacy Principles 2, 3, 5, 6, 7, 10, 11.
10. In New Zealand, this position is required for every organisation holding personal information - s.23 Privacy Act 1993
11. Section 43(1) Copyright Act 1994 (NZ), s 40(2) Copyright Act 1968 (Aust)
12. Section 14(1)(a) Copyright Act 1996 (NZ), s 35(2) Copyright Act 1968 (Aust)
13. Section 22 Copyright Act 1994 (NZ) s 33(2) Copyright Act 1968 define the exact durations for the different kinds of copyrights
14. Sections 94 - 104 Copyright Act 1994 (NZ) , s 189 Copyright Act 1968 (Aust)

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A NEW MODEL OF LIBRARY SUPPORT FOR OFF-CAMPUS POSTGRADUATE RESEARCH STUDENTS

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ABSTRACT

Libraries play a pivotal role in ensuring the success of higher degree research (HDR) students. Services offered by university libraries include collection development, reference and information services, resource and document delivery, and information literacy training. While maintaining and strengthening these traditional services, a closer collaboration between librarians, postgraduate research students and their supervisors is proposed. This new model suggests that librarians can assume the role of co-supervisor to ensure that the literature review component of a higher degree thesis is comprehensive and relevant. Librarians can also ensure that postgraduate research students and their supervisors are kept abreast of new information resources in their research disciplines. The proposed model was developed in recognition of the special support needs of off-campus higher degree research students who are disadvantaged by time and distance. The collaborative co-supervisor model was developed by building on previous Deakin University Library research into the library needs of off-campus students. It is suggested that, by adopting the model, there should be more and faster HDR completions, higher standards of research, an increase in research students' and supervisors' information literacy skills, improved research collections in university libraries, and reduced isolation for off-campus researchers.

INTRODUCTION

Libraries play a key role in ensuring the success of students and, therefore, the success of universities. 'University libraries are simultaneously collections of books and other information resources for use by students, academics and the wider community; the principal research laboratory for many researchers in such fields as social science, humanities, law, business and management; and a key locus of training for information literacy as the age of electronic information demands refined skills in seeking, evaluating and managing information resources.' (Deakin University, 1997) The Australian Federal Government's National Competition Policy and the recent West Review have been catalysts for Deakin University Library to carefully examine the services that are provided to all students, including postgraduate research students. Competition for student

enrolments, the need to differentiate services for particular markets, and the need to fulfil student expectations have been significant factors influencing library management. This paper will outline the pivotal role of libraries in supporting higher degree by research students, and will propose a much closer collaboration between librarians, postgraduate research students and their supervisors.

At Deakin University, the Library has undertaken extensive consultation with major clients by way of focus groups. Focus groups have been held with undergraduate students, postgraduate research students, off-campus students, academic staff and the University's Executive. From this input and feedback, the Library is very clear about what is important to the success of our students and, therefore, how the Library can, and does, contribute to the overall success of the University. As a result of the focus groups, researchers identified the most valued services provided by the Library and those services where improvement was required. The process identified the Library's strengths that can be used in marketing the University as a postgraduate destination. It also highlighted to library management those services that must be safeguarded at all cost and those that require additional resources to overcome existing problems. A further outcome was that the process focussed Library staff's attention on the special needs of postgraduate researchers, whether the student is studying on-campus or in an off-campus mode. Because of the emphasis on ensuring postgraduate success, the proposal to seek a closer involvement with supervisors and postgraduate research students was conceived.

The economic and management imperatives to ensure desired outcomes, and to maximise cost-effectiveness and competitiveness, do not mean a diminution of service to students. On the contrary, resources are being focussed on what the user actually needs and values, and ensures that new initiatives can be identified and implemented as libraries work in an environment of continual improvement. The initiative discussed here concerns the supervision of off-campus higher degrees by research students, an issue highlighted recently by the study *Open and Flexible PhD Study and Research* by Pearson and Ford (1997). In their report Pearson and Ford (1997, p. 116) made six recommendations. Two of these were:

The growing complexity of supervisory arrangements be recognised; and a rethink of 'traditional' supervisory practice be undertaken through a revision of the Australian Vice-Chancellors' Committee's *Code of Practice for Maintaining and Monitoring Academic Quality and Standards in Higher Degrees* (1990) to reflect the existence of open and flexible study and research as usual practice. [and]

There be further study of PhD education to address issues of how co-supervision can be provided optimally in various complex collaborative research settings, in industry, and in professional fields.

The model presented here is consonant with the recommendations of Pearson and Ford.

LIBRARY SUPPORT FOR POSTGRADUATE RESEARCH STUDENTS

This paper discusses library support for off-campus higher degree by research students, but it is also relevant to the needs of on-campus students. There has been a substantial increase in the number of off-campus research students in recent years and the trend will probably continue well into the new millennium, as both the sandstone and the newer universities are promoting research degrees in line with the current trend of lifelong learning. Professionals upgrading their qualifications and academics, especially from the newer universities, take up many of the places. Frequently, they study part-time and many study via distance education. Thus a new breed of students has emerged: those undertaking a higher degree by research at a distance.

University libraries must provide reliable, cost-efficient access to information, whether print or multi-media, and whether held locally or remotely. With the increase in part-time and off-campus research students, the need to provide information services that remove the barriers of distance and time become even more important. Libraries have always acquired and organised material so that the information contained is more easily accessible. With the increase in electronic information resources, libraries are also providing navigation aids to locating digital information to supplement traditional in-house catalogues. Libraries are also endeavouring to provide user-friendly desktop interfaces to electronic resources so users do not have to know how to use an inordinate number of different search engines. In addition, libraries are focussing on providing user-centred training and network user support so that students and academic staff can more easily use the myriad of print and electronic information resources required for research, and to access key library services from office, home or on-campus. These services, in addition to the more traditional reference desk, interlibrary loan and reciprocal borrowing services, are a boon to research students. As libraries move to providing electronic reference desks, information ‘stops’ on electronic conferences and comprehensive world wide web directories of quality www sites, the tyrannies of distance and time are being further eroded.

Librarians must provide students with access to the information that enables them to have a broad perspective on their field of research, and which gives a greater chance of familiarisation with all relevant work. As far as library training is concerned, some postgraduate distance learners feel that they require little assistance, as shown by some quotes from a recent overseas study. These were: ‘only an idiot would not be able to use a library’ and ‘[I] don’t feel this [library training] should be necessary—I was taught to use a library at primary school’ (Bolton, Unwin & Stephens, 1998, in press). A little information is a dangerous thing! It is easy to overestimate the level of library skills that students and

academic staff have. It is also easy for supervisors to overestimate the library skills of their students.

Numerous studies, both in Australia and overseas, have investigated the reasons for poor retention and completion rates for higher degree by research students. Several factors are common to many studies such as part-time candidature, isolation, the lack of a research culture and the quality of supervision. Since most off-campus students are part-time and isolation is a recognised problem, librarians, as already identified, have a role to play in breaking down isolation. In addition, they have an additional opportunity to improve the quality of supervision and, in doing so, hopefully improve retention and completion rates.

This paper discusses a *proposed* model of support for distance education research students. Whilst Deakin University Library already provides an exceptionally good service to these students, and this model is based on Deakin's existing services, the proposed model moves the goal posts significantly.

DEMOGRAPHICS OF AUSTRALIAN RESEARCH STUDENTS

The cohort entering postgraduate education has become much more diverse. In the past, the typical PhD student was a young male honours graduate studying full time on-campus. This is no longer the norm. Large numbers of mature age students with considerable professional experience are studying part-time and often by distance education. The number of doctoral students in Australia has increased over 200 per cent between 1989 and 1996 (Pearson & Ford, 1997, p. 9) and more specifically, off-campus higher degree by research enrolments in Australia have increased 124 per cent between 1990 and 1995 (Macauley & Cavanagh, 1996, p. 109). Most research students are over thirty years of age with 59 per cent being male and 41 per cent female and nearly 40 per cent of doctoral candidates are part-time and external, at least some of the time (Pearson & Ford, 1997, p. 10-11). According to a study on Deakin University distance education higher degree by research students, the gender ratio was very even with 50.5 per cent female and 49.5 per cent male (Macauley, 1996, p. 36). The same study found the majority of off-campus research students are not geographically isolated as 84 per cent were urban residents with 52 per cent living in capital cities, 11 per cent in the Geelong region and 21 per cent in large cities (i.e. those containing a University campus). Only 16 per cent lived in country areas and not all of those students were geographically isolated (Macauley, 1996, p. 43). From the study it was established that over 80 per cent of respondents were employed and of those, 75 per cent said their research related to their work. Overall, students undertaking research are demographically similar in many ways to their academic supervisors. Many distance education research students are actually academics upgrading their qualifications. As the demography of research candidates is changing, so must the way in which library services are provided. The 'non-traditional' student is becoming the 'traditional'.

A COLLABORATIVE MODEL OF LIBRARY SUPPORT FOR OFF-CAMPUS HIGHER DEGREE BY RESEARCH STUDENTS

Based on a Deakin University study (Macauley, 1996), it is proposed that an excellent library service would provide the following services to higher degree by research distance learners.

- Loans of books, photocopies of articles etc.
- Return courier service or postage satchels
- Database searches
- Interlibrary loans
- Reference support such as subject searches
- Assistance with electronic access
- Specific postgraduate liaison librarian
- Reader education
- Dial-in access to library catalogues, databases, Internet including providing software, i.e. Deakin Learning Toolkit
- Current awareness service, e.g. UnCover Reveal
- Publisher awareness service, e.g. DA Recommender
- List of new publications received, e.g. via WWW
- Assistance with bibliographic packages, e.g. EndNote
- Flexible methods of submitting requests, e.g. via telephone, facsimile, email, WWW, post
- Electronic reference desk
- Electronic delivery to requester's workstation, where possible

However, the proposed model would include an experienced librarian on a supervisory team in addition to the academic supervisor or supervisors. In Australia the majority of research candidates have one or two supervisors. At Deakin University, the norm is to have a Principal Supervisor and an Associate Supervisor, who may be external to the University. This new model would have a librarian as an associate supervisor, if not for the duration of the researcher's candidature, at least during the crucial literature review phase of the thesis.

OBJECTIVES OF THE PROPOSED SUPERVISORY MODEL

There are a number of key educational objectives that would be enhanced by this proposed model. It should lead to:

- more and faster HDR completions as students are receiving expert assistance at the literature review phase. Inadequate research at this stage can cause significant problems as the research project evolves due to inadequate background information or insufficient depth;
- higher standards of research as background research will be comprehensive and new developments can be monitored while the thesis is being prepared;

- research students and academic supervisors with well-developed information literacy skills;
- enhanced collection development within the library as librarians are closer to the research interests of the university's academics and postgraduate students;
- reduced isolation for researchers as the research liaison librarian and all the specialised information services of the library will be actively promoted to the student.

Librarians will also benefit from the closer collaboration. There will be:

- closer links with faculty and students so feedback and input to library services will be enhanced;
- a broadening of subject skills of librarians which will improve service delivery and collection development;
- professional recognition of the librarian's skills by academics which may lead to closer collaboration with general curriculum matters, not just in research supervision;
- an increase in research opportunities for librarians who will be stimulated by the increased exposure to University research culture.

JUSTIFICATION OF THE COLLABORATIVE LIBRARY-ACADEMIC SUPERVISORY MODEL

The goal is for a three way partnership to be formed—the candidate, the supervisor(s) and the librarian. Each partner can focus on their respective tasks whilst still working together, thus creating a whole which is greater than the sum of the parts. The purpose of the model is to provide complementary expertise to assist the candidate and supervisors.

Research candidates probably have the greatest information requirements of all students; consequently they have the greatest need for information literacy skills. A prime example is that the review of relevant literature is nearly always a standard chapter of a thesis or dissertation. It is often one of the chapters that causes considerable anguish, especially as the literature review is supposed to be undertaken very early in a student's candidature. In her study on the dissertation literature review, Zaporozhetz (1987, p. 132) found that "advisers ranked the literature review lowest of five identified elements of a dissertation in the amount of time and energy they [the supervisors] expended, and in the level of their expertise". This does not augur well for high quality thesis supervision. This situation can increase thesis completion times and drop-out rates for students.

Supervisors tend to pass on their own techniques to their students, techniques they have often learnt from their own supervisors, sometimes many years ago. These information-seeking techniques include personal contacts, personal library collections, and use of memory for location of information and face-to-face chats

in the department and at conferences (Barry, 1995, p. 126). Then, of course, there is the traditional compost heap approach of searching via footnotes and bibliographies (Kingston & Reid, 1987, p. 102). The same references keep being recycled via the retrospective paper chase and relevant more up-to-date papers can be overlooked. So can research from associated disciplines. The traditional methods have often been successful at meeting broad information requirements, but fall short of providing the comprehensive requirements of a doctoral candidate. Candidates have not normally built up the same information reserves as the more established academics (Barry, 1997, p. 229). The apprenticeship model of supervision, although not as common in distance education, reinforces the supervisors' information seeking methods. Even so, the academics are often distanced, intellectually rather than geographically, from the information technology available. Their techniques are often at best ad hoc. The exponential growth in information in academia over the last decade has led to a situation where academics can no longer keep up in their field using traditional searching strategies (Barry & Squires, 1995, p. 179). Unlike librarians, they have not always been fully trained in searching techniques. Often academics don't have the time or inclination to be trained given the increasing demands on their time. Coinciding with the massive growth in technology and information in the past decade is the changing demographic characteristics of the candidates, who are often returning to university and may be accustomed only to traditional information seeking techniques.

Richard Dreifuss has written about the gap between the student library skills expected by academics and the student skills observed by librarians (Dreifuss, 1981, p. 122). This paper takes his comments one step further. It can be argued that there is also a skills gap between the academic's perceived library skills and the academic's library skills observed by librarians.

Normally, academics do not use anywhere near the number (i.e. quantity) of information services available, nor, it is argued, do academics normally have the necessary skills or techniques (i.e. quality) to use those resources. In other words, many academics use tried and tested methods such as the compost heap approach. In the electronic age this is not sufficient, especially as supervisors have an enormous influence on their research students. While these observations are critical, it is central to the proposal for librarians to be more supportive of both the supervisor and research student and to become involved in the supervisory process. It is accepted that in the current climate academics are involved in teaching, both in an on-campus and off-campus mode, writing and updating coursework, often supervising research students, from minor theses to doctoral dissertations, preparing applications for research funding such as ARC grants, carrying out research and publishing the results, as well as performing a range of administrative duties plus a myriad of other tasks. As far as information skills are concerned, many academics have enough to get by but their skills can be enhanced by those of the information professional.

In reality, supervisors often lack the necessary information skills, bearing out Bruce's findings that "...in practice, candidates appear to receive little assistance from their supervisors [in preparing their literature review]". She further states 'research candidates, apart from the assistance they receive from their library, fend for themselves' (Bruce, 1991, p. 103). This lack of guidance has implications for library staff who must then fill in some of the gaps left by the lack of assistance from supervisors.

According to Christine Barry (1997, p. 228) doctoral students need a portfolio of services, including one-to-one tutorials; instruction that transcends the 'how to use systems' approach and incorporates advanced skills training in how to optimise use; and training in context related to academic subjects rather than generic training. Training should also attempt to target the needs of students (and staff) at their time of need and there is a developmental aspect to acquiring information skills with a necessary progression over time from basic to more advanced skills. Of course, users need to be convinced there is something worthwhile to be learnt and the effort is justified.

This is PRIM or Personal Research Information Management, a term coined by Partridge & Genoni (1996). They state that:

What is typically omitted is that part of the information cycle which requires the information literate individual to 'manage' the information for the period between the two stages of information retrieval and information use. That is, the effectiveness of the use that is eventually made of the information will depend to some extent on an individual's ability to organise, store, manipulate and re-gather information after it has been transferred from the public realm into their private research domain. This stage of the process, the stage of personal information management, becomes particularly crucial when the individual is operating in a research environment, such as that required to complete higher degree studies.

The information retrieval stage cannot be separated from PRIM, as one cannot manage what one does not have. All these areas are dependent upon each other for success. The method of information retrieval, for instance, will be determined by how the information is intended to be stored and manipulated. Using the bibliographic management system EndNote is just one example. To get the most out of EndNote search results should be downloaded electronically. This means PRIM becomes part of the information retrieval stage.

Basically, librarians need to impart the skills of accessing, evaluating, and synthesising information. It is up to the students and academics to extract the knowledge from the information. Knowledge is the synthesis of information (Isbell & Broadus, 1995, p. 54).

In a recent small study on the length of nearly 400 Deakin University doctoral and masters by research theses and the length of their bibliographies, it was found that

bibliographies ranged in length from 1-88 pages (Macauley, 1997, p. 6). Three theses had a bibliography of only one page. This is of concern to librarians. Is the research so unique that only a handful of relevant references could be found? At the other extreme the thesis containing an eighty-eight page bibliography raises the question of how much original research was actually completed? In fairness the theses were passed, so the examiners must have thought the bibliographies were appropriate. It still raises the issue of a likely need for assistance from experts in the bibliographic and electronic information fields. It is a common practice in academia to choose an associate supervisor due to specialised methodological expertise. Why not have another specialist adviser who is an expert in accessing the appropriate literature, a librarian?

Typical duties of a librarian on a supervisory team (in addition to those services already mentioned) could include:

- providing reader education including one-to-one sessions
- undertaking in-depth database searches including citation searches
- recommending relevant quality journals (especially refereed)
- establishing and maintaining current awareness services in the research area
- verifying references
- assisting in the evaluation of the comprehensiveness of bibliographies in students' literature reviews
- advising on bibliographic style
- recommending other libraries with relevant substantial holdings and facilitating access
- attending meetings with academic supervisors and student
- identifying relevant electronic lists, newsgroups, conferences etc.
- occasionally browsing on behalf of research students (traditional and virtual methods) to identify new information resources
- with other supervisors, targeting students at risk (of failing) and providing support and assistance
- educating the supervisors in information literacy skills
- participating in electronic conferencing (e.g. FirstClass)
- becoming a pro-active partner within the research culture.

This proposed model goes beyond that of a traditional liaison librarian. The role is not one of a research assistant; it's a specialist role—one that adds value to all participants in the partnership. As indicated in the introduction, Deakin University Library has undertaken a series of focus group workshops to ascertain exactly what library services users want. At a recent workshop for researchers (Austin Thompson & Associates, 1997), both staff and students established that a proactive partnership with competent, knowledgeable library staff was a highly valued element. The findings also established that proactive partnerships rely on the development of long-term relationships between researchers and library staff. It was also found that there should be more of a research culture within the library and researchers in the focus group felt librarians should be part of the research network of the University.

OTHER CONSIDERATIONS

There is certainly the question of spoon-feeding research students with this model. Most librarians feel we should not provide fish but rather provide fishing rods. This is fine in theory, but in practice you do not get a feed of fish every time you drop a line in. Satisfying information needs is similar to fishing. Researchers need the right techniques and equipment, at the right time. To land the big one you require the right tackle, suitable bait or lures, the timing must be right and location is crucial. Most of this comes down to training and practice. Whilst librarians would like all research students to end up being the library literate equivalents of Rex Hunt, this is unrealistic. Librarians, like Rex, are the experts and it is up to us to educate researchers in information literacy. While some may question the degree of the librarian's involvement in the research process, as Cavanagh & Lingham (1994) have stated "the student, in the end, is the one who must put the material together and write the thesis" (p. 119).

There are a number of other issues and considerations to be taken into account before adopting this model. For instance, are librarians appropriately trained and have they the necessary experience to add value to the supervisory process? Are libraries sufficiently resourced to take on these additional responsibilities? Are research candidates, academics and librarians willing to take on this new model of supervision? How should such a model be introduced?

CONCLUSIONS

Libraries are an integral part of the academic mission of a university. Libraries can enhance a university's reputation by providing access to world-class information resources and services and can help to stimulate research by promoting collections and services widely. Libraries are already a part of the research culture of a university. What is proposed is a strengthening of that partnership and collaboration.

As Stephens and Unwin stated in the first issue of *The Journal of Library Services for Distance Education* "we envisage a more hopeful and exciting future, in which academics and librarians collaborate to expand the pedagogical boundaries of distance learning, ensuring that electronic developments are integrated with traditional concerns for wide reading, student autonomy and independent thinking" (Stephens & Unwin, 1997). The collaborative partnership proposed will assist all those concerned. The candidate will become a successful, information-literate researcher in the process of presenting an excellent thesis within an acceptable timeframe. The academic supervisor will be assisted to keep up-to-date with evolving information technologies and services, where and when appropriate, with the assurance of ongoing assistance from librarians, and also the bonus of having some of the supervisory pressure shared. The librarian will have gained a sense of achievement from improving the standard of information skills, improving student retention and completion rates, and being part of the research success. The model presented is aimed at reducing the perceived gap in

information literacy skills observed in research candidates and some supervisors. It also adds a new dimension to the traditional role of the librarian.

At Deakin University Library our motto is 'we help people learn'. Another of Deakin University Library's guiding principles is the concept that students have rights. This is especially important for those who study in an off-campus mode. To quote the University Librarian, (McKnight, 1998, in press)

Translated into the Library's services, all students, regardless of mode of study, have the right to expect a similar level of library service and support. Therefore, the Off-Campus Library Service aims to ensure that remote students have similar opportunities to ask reference inquiries, borrow books, obtain journal articles, and undertake independent research as do on-campus students.

If implemented, this model would reinforce the strong user focus that has always been part of Deakin University Library's commitment to its distance learners. It should also enhance the quality of postgraduate research in an environment of competition and higher student demands. The model warrants further investigation and is currently under preliminary discussion with the Pro Vice-Chancellor (Research) at Deakin University. It may well be how supervisory panels will look in the 21st century.

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POSTGRADUATE STUDENTS: PROVIDING SUPPORT IN THE ETHICS REVIEW PROCESS?

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INTRODUCTION

Ethical research practice is no longer just talked about, but is increasingly scrutinised at both the institutional and societal levels. Demands for increased accountability for those working and studying within research institutions (McNeill, 1993, pp. 112-114) can effectively be met by demonstrating a broad institutional commitment to open discussion of ethical issues by both students and staff, as well as the development of an efficient review process that provides effective coverage for a broad range of disciplines.

Unfortunately, best practice has not always driven research inquiry. There are many documented instances of highly unacceptable research practice—for a broad overview of such instances in bio-medical research see McNeill (1993, pp. 17-36); for classic examples of unethical research practice in the behavioural and social sciences see Milgram's work on obedience (Milgram, 1969) and Humphreys' invasive pursuit of research subjects who engaged in casual sex (Humphreys, 1970). These and other instances have influenced governments and their research organisations, who now, through a variety of regulatory frameworks, actively seek to ensure the ethical conduct of research involving humans subjects.

In Australia, national policy has driven the development of ethics procedures at the institutional level. Policy and procedures promulgated by the National Health and Medical Research Council (NHMRC) have been adopted and promulgated across research organisations but not always with a view to how these processes might best be managed at the institutional level. In general, compliance has been the response, based on the realistic but limited view that research funding will not be forthcoming unless a formal ethics process is seen to be operating. The more basic question of how institutions might systemically incorporate research ethics and ethics review within their overall research practice has been somewhat neglected. Nor has the bio-medical bias of national policy always been tempered in practice by those university ethics committees dealing with significant numbers of non-medical research applications. The debate over the appropriateness of Australia's national medical research agency promulgating ethical guidelines covering both medical and non-medical research generates much heat. The reality in Australia has been that the NHMRC has been most active in this area, and with

its significant funding largesse has forced universities to comply with its policy. The NHMRC has also led debate on issues of misconduct in research, often in tandem with the Australian Vice-Chancellors Committee (AVCC). The Australian Research Council (ARC), which funds a significant proportion of the non-medical research undertaken in Australia (1997 Total Research Grants—\$409.5 million) has recently prepared and distributed through the AVCC a draft research ethics policy document. This document has arisen from concern regarding research interventions in Aboriginal and migrant communities, and focuses strongly on the ethical issues surrounding humanities and social sciences research (ARC, 1997).

Given the complexity of the ethics review structure across Australia, students may often appear to be of subsidiary importance, particularly if their work is not linked to biomedical research and biomedical funding. The human ethics clearance process does present particular problems for research students. Students may face institutional and governmental barriers that will limit their opportunities to conduct research involving human participants—education and nursing students are most affected by these barriers, as they seek to negotiate entry into large, complex organisations such as hospitals and school systems. Students, particularly honours students, can have tight time-frames in which to organise their ethical clearances. Supervisors may not always be fully aware of the complexity of both actual access to human subjects and issues of informed consent and cultural sensitivity. For some students, writing about humanities and social sciences research in an ethics application form that is often based on the biomedical construct promulgated by NHMRC can produce its own particular problems. This paper reports how one institution, through the management of its ethical review process, seeks to support the particular needs of research students within the context of developing an environment where questions about the responsible conduct of research are openly discussed.

ETHICAL BEST PRACTICE

The legislative and institutional recognition of human rights has in some ways been a 20th century phenomenon, given great impetus by the United Nations promulgation of the Universal Declaration of the Rights of Man [sic] in 1948 (Snyder, pp. 43-44) and the UN's International Covenants on Economic, Social and Cultural Rights and on Civil and Political Rights (1966)—see Whitlam, 1985, pp. 174-181. These rights have expanded to include such issues as Anti-Discrimination, Equal Employment Opportunity, Freedom of Information, Privacy etc. Over the past five decades, the ethical conduct of research has been a focus for international debate, no doubt spurred on by the disclosure of Nazi atrocities during the Second World War (Lifton, 1986; Shirer, 1959: pp. 979-991). Unfortunately our century is full of instances where unethical experimentation on humans has taken place (McNeill, 1993, pp. 17-36). Such unethical experimentation on humans has influenced the international community in its desire to implement international standards in the conduct of research. The

Nuremberg Code (1948) arose directly from the trial at Nuremberg of twenty three Nazi doctors and scientists accused of war crimes and crimes against humanity (16 were found guilty). The code gave prime emphasis to the principle of consent (McNeill, 1993, pp. 42-42). The Declaration of Helsinki followed, a less legalistic, less restrictive code drafted by the World Medical Council in 1964 (McNeill, 1993, pp. 44-47). This code has been adopted across the world—Australia included. Its amendment in 1975 to promote the role of ethics committee review has likewise been influential, to the point that Committee review has become “the standard means for regulating research on human subjects worldwide” (McNeill, 1993, p. 66).

In Australia, such ethical standards are set out in the guidelines issued by the NHMRC, *The Statement on Human Experimentation and Supplementary Notes 1992* (NHMRC, 1992, pp. 2-3). As McNeill notes, the “Australian Ethics review system was largely the creation of a medical funding body...and there has been little governmental involvement in its development” (McNeill, 1993, p. 84). Australia has not followed the Canadian example of developing separate systems for ethical review of medical and non-medical research. In Canada the Social Sciences and Humanities Research Council (SSHRC), deals with formal guidelines relating to institutional review committees, as well as issues of informed consent, deception, risk/benefit, privacy and confidentiality as they relate to humanities and social sciences research (McNeill, 1993, pp. 82-83). The NHMRC statement does include a number of supplementary notes of considerable interest to non-medical researchers, including one relating to research on children, the mentally ill and those in dependent relationships, as well as the involvement of researchers with Aboriginal communities, the latter arising from extensive consultation with various Aboriginal communities and peak bodies (NHMRC, 1991). These Australian standards include the formalisation of an ethical review process at the institutional level, usually a hospital, university or other research organisation, covering the work of both staff and research students. In August 1994 the Minister for Health and Family Services commissioned a review of the guidelines. The resulting report was presented to the current Minister for Health and Family Services in March 1996 but no formal changes to the Statement have been endorsed to date. The report has acknowledged the expanding responsibilities of Institutional Ethics Committees (IECs) in Australia.

The NHMRC Statement on Human Experimentation no longer applies narrowly to medical experimentation but applies more widely to health research. IECs no longer consider only the ethical validity of experimentation involving humans but also research “on” or “about” humans. (Report to the Minister for Health and Family Services, March 1996, p. 15)

Yet, as Susan Dodds accurately summarises, the implementation of ethics processes within research institutions has tended to focus on compliance and the

formal approval functions of ethics committees, rather than seeing the need to promote broad discussion amongst students and staff of ethical 'best practice':

Focussing on ethics committee approval processes as the sole site of ethical concern simultaneously allows important ethical issues to be overlooked and places excessive responsibility on the ethics committee for identifying ethical issues and on researchers for protecting participants against violations of ethical principles (Dodds, 1996, p.1).

For many institutions, coming to grips with a broader agenda than basic compliance has presented a new challenge.

NEPEAN'S ETHICS AGENDA

In this paper we would like to outline some of the complexities we believe research students face and examine how, at the **central** level, we have sought to manage such difficulties by adjusting processes and offering a flexible, personalised service for postgraduate students.

Development of the ethics review process within the University of Western Sydney, Nepean (UWS Nepean) commenced in 1991 with the establishment of the UWS Nepean Human Ethics Review Committee. A focus on postgraduate ethical research practices has evolved only over the last few years. As a newer university (established 1989), with a small but increasing research student load, this is not unexpected. Initially, priorities and available resources were directed towards the development of an ethics culture focussed on an educative strategy for UWS Nepean's research staff. It has, however, become increasingly evident that the development of an educative program to assist postgraduate students develop best practice in research is a desirable goal for students and the institution.

Those of us who have suffered the various stages of student research may be able to recall the agonising attempts to develop a 'worthwhile' research question, as well as decide on the appropriate research method and a credible and feasible data collection procedure. On top of drafting a reasonable proposal, students are then often confronted with the need to seek ethics clearance. It sometimes can seem overwhelming. At UWS Nepean we have sought to respond to the increasing need to ensure our postgraduate students meet ethical guidelines when conducting research that involves human subjects. In the first instance this has led to the greater provision of professional advice to and support for research students.

When considering how best to provide an educative service to students it became evident that we had to capture the audience in the initial stages of developing the research question. In his book, *The Research Process*, Professor Gary Bouma (1993, p.7) has outlined the Research Process through its broad phases, including: clarifying the issues to be researched and selecting a research method; collecting evidence about the research question; to concluding and relating the evidence

collected to the initial research question. Exploring the ethical issues that relate to the involvement of human participants (in any research project) at the idea-forming stage can give a research student a distinct advantage, if for no other reason than that awareness leads to a reduction in the stress levels experienced by students. It is simply not good practice for students to have to rework their proposal a long way down the track in order to meet basic ethical guidelines, for either internal or external requirements. Thinking about ethics as the proposal is being conceptualised reduces the risk of unnecessary complication or burden. Human participants such as school children, their parents, teachers, nurses and hospital patients are clear examples of a 'research sample' that students cannot interact with unless they comply with formal ethics approval processes.

UWS Nepean's development of an educative process for postgraduate students at a central level has taken two forms. One is directed at postgraduate supervisory staff and the other at the establishment of channels where direct access to professional advice and resources for postgraduate students is possible. The methods employed in both these forms are set out as follows.

INFLUENCING SUPERVISORS

Within UWS Nepean, information about the ethics clearance process is disseminated directly to individual supervisors by the Human Ethics Officer (HEO). The HEO is a full time position within the Research Office and is responsible for the management of the ethics review process and the overall development of UWS Nepean's 'ethics culture'. The position is devoted equally to administrative and developmental matters. Supervisors are provided with details of the formal approval process, application forms and guidelines. In this communication process, the email system has been an important medium that allows quick access to forms and guidelines as well as offering immediate responses to queries relating to the ethics review process. The Research Office has developed a comprehensive information guide for staff and students through the Ethics Web Page which provides information for those seeking guidance about the ethics review process.

Supervisors are also invited to avail themselves of the professional support that the HEO can provide, such as conducting talks with groups of postgraduate students. These talks are centred around the ethics review process, formal approval and access requirements, as well as ethical issues that may relate to a specific discipline. Supervisors have also been encouraged to become involved in the ethics process by signing off applications before they are submitted to the Ethics Committee. As supervisors have become more familiar with the processes, they have begun to actively promote the relevance of conducting research under appropriate ethical guidelines to their students. Over the last twelve months it has become increasingly evident that supervisors are advising their research students, at an early stage of their research proposal development, to examine the ethical

implication of their research and to seek advice from the HEO. In some academic units, procedures have now been put in place to advise postgraduate students, when information is first forwarded to a student from a school about how to obtain an ethics clearance for a research project involving human subjects.

Within universities some discipline areas are, however, still reluctant to embrace the idea of formal ethical review and the notion that ethical issues may be pertinent to the involvement of human subjects in their research work. Such areas, for example, may focus their research on human behaviour within the work environment, or issues of how to manage effectively human resources within corporate environments. Ethical issues such as privacy and confidentiality, are not always automatically acknowledged as first-order issues within such research paradigms. Likewise, the opportunities for students in such disciplines to debate 'ethical best practice' may be restricted. Supervisors understanding of ethical review may also be restricted to notions that 'ethics in research is only relevant to research on or about children and those involved in the health area'. Thus, it is not relevant, say, to a captive workforce within an organisation whereby management has agreed to its workers undergoing a series of intensive interviews with the research team, which itself sees no further need to seek the informed consent of staff or to guarantee their autonomy not to take part in the research. Researchers operating within such areas may still resist involvement in the 'ethics review process'; an examination of ethics only becomes an issue when compliance is required to obtain research grants. As a source of professional advice, independent from the school structure, a dedicated Human Ethics Officer can provide another viewpoint to both students and staff.

INFORMATION AND ADVICE FOR POSTGRADUATE STUDENTS

Increasingly UWS Nepean's postgraduate students have become aware of the professional advice that is available to them through the HEO.

For postgraduate students, professional advice is centred around the relevant ethical issues of a specific research project. An examination of the human involvement, the expectations of the researcher, likely ethical issues, restrictions that may affect their access to human subjects, cultural issues, formal approval processes, likely ramifications and adverse effects for such humans are some of the issues raised. The HEO's role is not to argue directly how a particular research ethics protocol should be written, nor what its ethical conduct should be, but rather to guide students to answer these questions. The aim is to enable the researcher to view the research project from an imaginative framework ie. how would they view their **own involvement** as an individual participant within such a research project, basically seeking to prompt an exploration of what the significant ethics issues might be and how they might be addressed within the project methodology. Where projects involve access to distinct external communities, such as Aboriginal communities, the Ethics Officer can pose broad

questions regarding community consent and involvement in the planned research. This basic exercise is generally done through an individual consultation - with either staff or postgraduate students. Though time-consuming, this process generally ensures that ethics applications are not rejected outright by the ethics review committee. The quality of application can be monitored before being sent to the IEC. In the case of postgraduate students it can also prompt a more informed discussion between supervisor and student.

For students, the process of writing an ethics application can by itself be an intimidating experience. The biomedical emphasis of NHMRC, with its focus on medical experimentation, is not at all helpful for health sciences or education students. At UWS Nepean we have written guidelines that remove some of the medical focus, guidelines that are in plain English, whose intention is to elicit a clear and thoughtful application ie. “State simply and clearly what you are intending to do. Explain how you will recruit and interact with your participants...” (UWS Nepean, Human Ethics Review Committee Guidelines, 1997, p. 3). The guidelines outline potential ethical issues and the need to ensure (a) that the research is rigorous, (b) that participants have their integrity and autonomy respected and protected, and (c) that harm or risk of harm are both minimised and outweighed by benefits. Research students may also submit draft proposals to the HEO for advice and comment.

At UWS Nepean, the availability of electronic information sources is promoted extensively to postgraduate research students. The HEO, after review of many preliminary submissions from students and having gained an awareness of the issues that constantly arise, has developed for the Ethics Web Page a series of case studies relating to some of the problems that students might encounter in the formal approval process, as well as basic information about what the IEC submission requirements are. At the group level, research students are also offered opportunities to participate in annual ethics forums. These forums centre around the ethics review process and provide students with an opportunity to take part in open discussions about ethical best-practice in research involving human subjects. They are organised and co-conducted by the Human Ethics Officer usually in tandem with the Chair of the Human Ethics Committee and the Staff Development Unit.

EXTERNAL BARRIERS

Research student numbers across Australia have exploded during the last decade—from 12,990 in 1985 to 32,714 in 1995 (DEETYA, 1996, p. 21). More and more students are undertaking research involving external organisations, agencies and communities. Increasingly, research students are encountering external institutional barriers when attempting to conduct research projects involving human subjects. Government departments, such as those involved in education and health services, are scrutinising how they allow researchers access

to the humans that use or work within such institutions. Such scrutiny has arisen because of increased community expectations regarding the individual's right to privacy. The NSW Department of School Education (DSE) provides an example of the changing landscape. DSE has a formal research approval process for those undertaking research within schools. The guidelines, under which the process operates, are currently under review. The new guidelines are expected to restrict student researchers' access to both children and teachers. It is anticipated the DSE will require that all research conducted in NSW Government schools should meet and be seen to meet ethical standards. It is also anticipated that proposed methodologies will be more stringently scrutinised; schools will also have stronger veto rights over proposed research projects. Past practice, such as being able to conduct research in one school without following any formal approval process, will no longer be possible. For postgraduate students, just knowing about such potential barriers can assist them in developing realistic research proposals. These impending changes have not been widely publicised. Having a pro-active Human Ethics Officer, the institution has a dedicated staff member who can seek to forewarn and advise research students about such changing external requirements. Unfortunately these changes could severely restrict the research activity of many education research students—we suspect that they have arisen less from the fear of harmful research, than the sheer explosion of research students seeking entry into the school system. In essence, those being researched may be calling a halt to the flood of researchers wishing to 'pick over their bones', so to speak, a not dissimilar reaction to that voiced by Aboriginal Communities (NHMRC, 1988).

Research students intending to conduct research projects within the NSW Health Department sector must also comply with the Department's formal access requirements. Ethics Approval from a designated Area Health Service Ethics Committee is required before any research project may be conducted. In order not to burden students and researchers with multiple applications, UWS Nepean's IEC has established a process whereby it will formally accept the decision of another formally constituted ethics committee (a committee recognised by and reporting to the Australian Human Ethics Committee, Canberra). Thus a research student need only apply in the first instance for one ethics approval. Unfortunately, in the health sector such reciprocity is rare—in NSW, each Area Health Service generally requires a separate application from a researcher, irrespective of whether they already hold an IEC approval for their project. The UWS Nepean IEC policy is that it notes such approval, though reserving the right to make comment upon the proposal and offer suggestions for improving the ethics proposal outlined therein. This method is helpful to students who have very tight research timetables—particularly honours students. In the health sciences area, supervisors are generally aware of the formal requirements of the NSW Health Department and usually disseminate this information to their students. But the landscape is continually modified. In response to community expectations, the NSW Health Department has reinforced its ethics policies by recently issuing a

document which sets out a Code of Practice for Information Privacy (NSW Health, 1996). The Code, as a set of rules, has been introduced to safeguard the privacy of client/patient information and will apply to the whole New South Wales public health system. This code reinforces the need to ensure that ethical research practices are followed. Research students' awareness of such codes relies on a strong alliance between supervisors and the HEO.

IS OUR SYSTEM WORKING? BEYOND RESISTANCE TO ACCEPTANCE?

As workers committed to developing an ethics culture, we seek to discover, through reflective practice, how the ethics review process is both perceived and how it might be improved. What is essentially meant by an ethics culture is an environment whereby researchers and research students think about the ethical issues at the same time they are developing a research project. After seven years effort it is possible to reflect upon a changing environment. In the early years, 1991-1994, there was no dedicated staffing in the ethics area. Administration and developmental support was provided as needed by staff within the Research Office, over and above their normal workload. Resistance to the implementation of ethics review was strong. When the institution linked the release of its own internal research funding to the ethics review process in 1992 the resentment was palpable.

The investment of UWS Nepean in appointing a full-time Human Ethics Officer (1994), and resourcing that position by placing it within the Research Office, has seen the evolution of strong collegial relationships between individual researchers and the HEO. Support, advice and the expeditious processing of human ethics applications has provided the position with positive feedback. Flexibility and a client focus have overcome some of the resistance and hostility. Staff, in particular, have accepted that internal funding will not be available until ethics clearance has been gained. At a basic compliance level, ethics review becomes a matter of research planning, built into the process that researchers realise they must undertake.

This model of strong early resistance, followed by acceptance, has carried over into the research student area as the institution has sought to extend coverage across the various disciplines that operate within UWS Nepean. Students, like staff, can manifest anger and disbelief about having to deal with a formal ethics review process ie. it is another hurdle to overcome and obstruct when compared to how things had successfully operated in the past. Such responses can require extensive counselling between the HEO and individual students. The anger generally passes, followed by recognition that the HEO will assist students to produce an ethics application as well as facilitate the administration process. The UWS Nepean IEC is generally cognisant of the often pressing needs of research students, particularly honours students. The committee meets ten times a year and also forms sub-committees to deal with urgent applications.

Universities may argue that the lack of dedicated resources and staff, as well as the sheer volume of submissions restricts the development of a reflective ethics review process. We would argue that the investment can create an environment that encourages staff and students to seek advice from an Ethics Officer at an early stage of the research process, leading ultimately to a stronger focus on methodology and project benefits. As a management strategy this has positive outcomes for the institution. For students it can lessen the frustration when dealing with external agencies. If the process is aligned to a client focus service that seeks to expedite process and committee matters, there is preliminary evidence at UWS Nepean that such a process can change researchers' negative attitudes. Staff and students do begin to seek advice and coverage is slowly extended across the disciplines. Within UWS Nepean during the period 1991-1997, the number of applications reviewed by the IEC has risen significantly and now covers all broad discipline areas (see Table 1).

**Table 1. UWS Nepean, Human Ethics Applications 1991-1997
—by academic unit**

Faculty	1991	1992	1993	1994	1995	1996	1997
Commerce				5	5	6	7
Education	7	2	9	18	16	24	36
Engineering		1		2			
Humanities		3	6	10	9	9	13
Nursing and Health Studies	5	12	8	16	23	26	15
Science & Technology				2	2	2	2
Visual and Performing Arts	1	2		1	6	4	1
Student Services	3	6		1	2	2	2
Law						1	1
Library						1	
TOTAL	16	26	23	55	63	75	77

source: UWS Nepean Research Office

**Table 2. UWS Nepean, Human Ethics Applications 1991-1997
—by applicant category**

Applicants	1991	1992	1993	1994	1995	1996	1997
Staff	16	25	22	47	51	49	31
Postgraduate Research				8	4	12	20
Postgraduate Coursework		1			4	7	24
Honours			1		4	7	2
TOTAL	16	26	23	55	63	75	77

source: UWS Nepean Research Office

Improving the quality of applications from both staff and research students expedites the ethics review process, generally resulting in fewer delays in the approval process.

From a management and administrative perspective, the ethics review process and the educative strategy underpinning it is largely supported by the UWS Nepean Research Office. Placement within such a central unit, one that supports all researchers within the institution, as well as managing internal and external

research funding, has given the HEO position both resources (up-to-date computing facilities, desktop publishing, web page development) and training it might not have been able to afford as an isolated unit. Most importantly, the HEO operates within a collegial environment. The isolation of such positions can limit their effectiveness. For staff and research students it also means that they have a one-stop-shop for research, including funding, project management, scholarships, submissions and ethics. For the Human Ethics Officer it also means that they are particularly aware of internal and external funding proposals that may require ethics approval, allowing for a more pro-active role.

Ultimately, however, one dedicated officer cannot deal with all the ethics agendas a university has to confront. In its earlier manifestation, the joint NHMRC/AVCC Statement and Guidelines on Research Practice (1990) was adopted by UWS Nepean as formal policy in 1991. It would be true to say, however, that the systemic operationalisation of these research standards has occurred slowly within the institution, particularly in so far as the guidelines relate to the supervision of research students and joint student/supervisor publications - Section 5 of the 1997 guidelines (NHMRC/AVCC, 1997). The UWS Nepean Research and Graduate Studies Committee has, however, begun to examine how a more extensive implementation of these guidelines, across the disciplines, can be effected. This will undoubtedly involve a series of development forums aimed at both staff and research students. The agenda is indeed a large one—by necessity, institutions are going to have to collaborate with staff and research students to achieve it. As the Australian Health Ethics Committee noted, the ethics process requires “education, communication, responsiveness and accountability” (AHEC, 1996, pp. 9-10).

CONCLUSION

In Australia the review of research projects is undertaken primarily to protect individuals and communities against unethical research practices. Research institutions do not usually involve themselves to a great degree in the development of ethical research practices of the individuals of that institution, whether they be staff or students. Like Dodds (1996, p. 2) we believe that IECs should be seen as having a range of roles designed to reduce the risks of unethical research occurring through assisting researchers to see and address the ethical problems which may be posed by a research project. Our argument is that management support for the Ethics Officer within the institution allocates time and resources to both staff and students, thus reducing the risks of unethical research occurring and allowing for a more systemic focus on basic issues such as in human rights and human respect within the research process.

What we have outlined briefly in this paper is a management response to serving the ethics review needs of postgraduate research students at a central level. Such a response must operate in tandem with a teaching program that incorporates debate and discussion concerning broader moral and ethical issues. Compliance is often

the force that leads ethics review, not only within Australia but overseas. In his international survey of ethics review, Paul McNeill (1993) has found little evidence of any national system carrying strong legal sanctions for failure to comply; the main incentive for researchers to seek ethics approval is the threat of the withdrawal of funding support. As workers and researchers, we would argue that ethics compliance is neither the beginning nor the end. Ethical conduct goes beyond regulations, application forms and the world of bio-medical research trials; it underlies the health and rigour of any learning organisation. In a recent article, Michael Daingneault, President of the Ethics Resource Centre, Washington D.C. (Daingneault, 1997, p. 29) argued that defined core values are a must for organisational success. Daingneault has outlined five imperatives of leadership that centre on ethics, such as the moral imperative—*where people prefer to operate in an environment where they can act with personal integrity*; the pragmatic imperative—*where standards are set for dealing with external stakeholders*; the legal imperative—*where an effective program is developed to prevent and detect violations*; the perceptual imperative—*where others recognise that you work actively to set and meet the highest standards* and the change imperative—*where as the organisation changes the only true constants are the values and the principles*. A dedicated Human Ethics Officer can contribute to such organisational success, particularly in the influence such a position can have on the quality of both ethics applications and the discussion of ethics issues within the research development process. Student exposure and appreciation of ethical research practice is surely part of the organisational success that any University should aim for. At UWS Nepean that remains our aim. Our achievement at this point in time is to have begun a process of giving greater institutional focus to human ethics. This has involved instituting debate and discussion within our organisation as well as developing an administrative process that is focussed on prompt feedback and detailed advice to applicants. Within such a process, we seek to actively engage and support postgraduate research students. We hope that the quality of this endeavour is ultimately reflected in the creation of graduates who take with them into their working lives an understanding of what Noel Preston describes as “the capacity to make responsible ethical decisions, because this capacity is absolutely essential in contemporary workplaces and social relationships” (Preston, 1996, p. 199).

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RESEARCHING THE RESEARCHERS: THE PILOT POSTGRADUATE RESEARCH EXPERIENCE QUESTIONNAIRE

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ABSTRACT

This paper describes work undertaken by the Graduate Careers Council of Australia (GCCA) in conducting the pilot Postgraduate Research Experience Questionnaire (PREQ). This questionnaire explores the experience of higher degree research graduates, aspects of whose university careers have not been examined previously on a national basis. Two versions of the pilot survey have been developed in this pilot stage and have been distributed. The paper explores why the new questionnaire was developed, the context in which it is being tested, the process by which the pilot instruments have been administered and the work still to be carried out.

As the project is not due for completion until May 1998 results given in the paper are of an interim nature but attention is given to the issues which graduates are indicating are important to them, for example, the supervisor-student relationship.

The expected outcomes of the pilot PREQ project include the establishment of the subscales' validity and the development of a single and shorter version of the survey instrument. Proper use of data obtained by means of the PREQ will assist universities' understanding of the educational experiences of higher degree research graduates.

Andreevna: Are you still a student?

Trofimov: I expect I shall be a student to the end of my days.

(Anton Chekhov: The Cherry Orchard, Act 1)

OBJECTIVE AND THEMES OF PAPER

The objective of this paper is to describe the development of a new instrument aimed at assisting us all to a better understanding of the experience of higher degree research students—the Postgraduate Research Experience Questionnaire (PREQ). We shall:

- explain the rationale for this new questionnaire;
- examine the context in which the PREQ is being developed;

- describe the process by which the pilot instruments were administered;
- describe the remaining steps in the process.

The project is not due to be completed till May 1998 and therefore it is not possible to report in any detail on the analysis of the responses. However, some preliminary comments about the performance of the pilot instruments will be offered and attention will also be given to the issues which graduates have been indicating are important to them.

RATIONALE FOR THE DEVELOPMENT OF THE PREQ

Since 1992 the Graduate Careers Council of Australia (GCCA) has included with its Graduate Destination Survey (GDS) form, the Course Experience Questionnaire (CEQ) which is intended to capture graduates' perceptions of their higher education experience. The information gathered through the CEQ is used in a number of contexts and by a number of different authorities including universities (in order, for example, to identify areas of good teaching practice), the *Good Universities Guide*, and the Department of Employment, Education, Training and Youth Affairs (DEETYA) who used data derived from the CEQ in their recent performance indicators report, *Characteristics and Performance of Higher Education Institutions*. (The GCCA has little control over the uses to which CEQ data are put by some users).

The CEQ has shown itself to be a robust and resilient instrument with wide acceptance. Its validity as a measurement of university teaching quality has been demonstrated by Australian and overseas researchers (Richardson, 1994; Wilson, Lizzio & Ramsden, 1997).

However, it has been recognised for a number of years that the CEQ, which was developed initially for bachelor degree graduates, is inappropriate in many ways for the growing number of postgraduate research students in Australia. The number of commencing research higher degree students grew by 6.1%, from 9,945 to 10,554, between 1996 and 1997 (DEETYA, 1997, p. 8).

The CEQ went to all university students who completed university degrees in 1992 simply because the GDS goes out to all graduates as a matter of course. (It would have been uneconomical to try to separate the higher degree research graduates). Responses confirmed that many of the 'course' and 'teaching' oriented questions did not reflect the experience of higher degree research students and graduates. In the report of the 1994 CEQ Ainley and Long noted that:

The Course Experience Questionnaire was primarily developed for use with students undertaking studies for an initial qualification. Although the present survey involves all graduates, including those with postgraduate qualifications, most attention is given to first degree graduates. The concepts underlying the questionnaire are

most appropriate to courses which they studied. (Ainley & Long, 1995, p. 1)

Similarly, those responsible within universities for student feedback or program review were reporting that the CEQ was not a suitable fit for research students. A new instrument seemed an appropriate development, especially in an environment which, as Marginson has noted, not only saw the development of quality mechanisms but the strengthening of a ‘consumer culture’ within universities and the ‘encouraging [of] student evaluation of teaching’ (Marginson, 1997, p.233). While many institutions had developed their own instruments, there was a need for a national data set in order to put these internally-gathered data into context.

In the 1996 CEQ Report Johnson noted that the “views of students completing higher degrees by research will be the subject of a separate publication, the Postgraduate Research Experience Questionnaire” (Johnson, 1997, p.1). By this time the GCCA had submitted a proposal for the PREQ pilot survey under the Evaluations and Investigations Programs of DEETYA and had received approval and funding.

Thus, the PREQ is a new survey (but based in many aspects upon the CEQ) which is intended to explore the experience of higher degree research graduates, an important body of exiting students, aspects of whose university careers have not been examined on a national basis in the past.

CONTEXT IN WHICH THIS DEVELOPMENT IS TAKING PLACE

The development of the PREQ takes place within a context where there is both considerable debate about performance measurement in Australian universities, and also considerable attention to ‘research’ per se, whether the precise issue be the role of research versus the role of teaching in higher education, the development of so called research institutions, the Higher Education Review, etc.

Given this background it is not surprising that there should be system-wide interest in postgraduate student feedback as one way of enhancing research offerings. The policy of the Federal Government has been to monitor more closely the outputs of universities, to seek for more detailed analysis of performance indicators. The DEETYA publication referred to above, *Characteristics and Performance of Higher Education Institutions*, takes this level of analysis to a spectacular degree—148 columns of data. As Paul Ramsden says after a time a reader might expect to see ‘a quantitative analysis of the hair colour of the vice-chancellor, the number of car parking spaces within a kilometre radius of the sports centre and the sexual preferences of the registrar’ (Ramsden, 1998). The substantive point here is that one might reasonably expect in the future (and for better or worse) that one indicator in such a DEETYA collection might be ‘PREQ Good Research Score’, along the lines of the existing ‘CEQ Good Teaching Score’. (Incidentally, DEETYA’s term, not the GCCA’s.)

The significance of the PREQ in this context is that compared to the considerable body of research that now exists concerning student evaluation of undergraduate courses, or university courses per se, there is little research into the postgraduate student experience (Johnson, 1997, pp. 2-10; Cameron, 1996). While this is certainly not to suggest that Australian universities have not picked up on the possibilities of postgraduate feedback and review, nothing has been done on a system-wide basis to date. Issues of immediate concern in the development of the PREQ included

- what questions to ask (what issues do the students consider significant, and what issues do institutions consider significant);
- how best to frame the questions both in terms of wording and modes of response;
- how well will the PREQ reflect the postgraduate research experience.

It is to be hoped that the PREQ, like the CEQ and similar instruments, attracts detailed academic scrutiny.

METHODOLOGY

A PREQ Advisory Committee was formed in order to assist in the development of the instrument and oversee the project. The membership of the Advisory Committee was based on the GCCA's Survey Management Group (SMG) with the addition of senior academics and Professor Paul Ramsden, who developed the original version of the CEQ. (The SMG advises on the conduct of the GDS and CEQ, and is made up of representatives from the AVCC, DEETYA, institutions and the GCCA).

A wider advisory group was developed via email. This group consisted largely of deans and directors of graduate education and institutional GDS/CEQ survey managers. Draft documents and questionnaires were circulated to this group for comment and information. A good deal of useful feedback resulted.

The item banks were developed after an examination of current surveys being run internally by institutions, and in consultation with the two advisory bodies. Two focus groups attended by current postgraduate research students were also conducted with a view to confirming the opinions of the advisory bodies and developing an understanding of the degree of importance placed on issues by research students.

The item banks were then further developed into two sets of questions which broadly reflected each other in content. One set required that subjects indicated their degree of agreement with statements, while the other required that subjects indicate their level of satisfaction with various aspects of their higher degree research experience.

The development of two versions was due to uncertainty on the part of the Advisory Committee (which was taking criticism of the CEQ into account) about which type of instrument would be most useful. A number of CEQ critics had noted the wording of questions and the mode of response (where respondents were asked to indicate level of agreement) and the Advisory Committee wanted to test these issues at the pilot stage. The GCCA also had the view that developments arising from the PREQ might eventually feed into the CEQ.

These two draft instruments were then presented to a third focus group made up of members of the first two. The students were asked to complete and comment on the draft forms. Following this, a further round of consultation with the advisory bodies was conducted, and final pilot versions of the PREQ were developed.

Copies of both versions of the pilot survey are attached to this paper. The 'agree' version of the form uses a format similar to that used in the CEQ and seeks responses on a five-point agree-disagree scale with the addition of the option to indicate a 'don't know' response. The 'satisfaction' version uses a four-point scale ('very satisfactory to very unsatisfactory') also with the addition of a 'don't know' response option.

The aspects of research life touched upon in the questionnaire include:

- supervision
- the thesis examination process
- issues around student goals and expectations
- faculty/department ethos and intellectual climate issues
- infrastructure matters
- skills development issues
- and overall ratings

Twenty-eight universities agreed to participate in the conduct of the pilot PREQ survey in which questionnaires were distributed via mail to higher degree research graduates during October and November 1997.

By January 1998 responses were back with the GCCA and the process of data entry, analysis and report writing began. Much of this work is being performed on behalf of the GCCA by the Australian Council for Educational Research (ACER) with a target date for the completion of the project of May 1998. The expected outcomes for this pilot stage of the new survey are:

- broad feedback on the PREQ
- the establishment of the subscales' validity
- and the development of a final single (and shorter) version of the survey instrument.

THE REMAINING STEPS OF THE DEVELOPMENT PROCESS

After the analysis of the returned data is complete, the Advisory Committee will re-convene to consider the report and agree on a final form for the PREQ. The wider advisory group will also feed into this task.

Once the development process is complete, the PREQ will be attached to the GDS form for general use with research degree graduates.

WHAT DO STUDENTS FIND IMPORTANT?

At the time of writing this paper it was not possible to present a complete analysis of our results given that, as noted above, the project is not due for completion until May. However, it is possible to present some interim comments and data which will be of interest and which touch upon some of the themes of this conference.

A total of 2,336 questionnaires were distributed to students who had completed their postgraduate research degrees in the last 12 months, with the two versions being used in approximately equal proportions. There were 1,068 forms returned which yielded a response rate of 45.7%. The researchers were disappointed with the relatively low figure, but felt that the timing of the distribution of forms over the November-December period, while necessary for meeting the research completion deadline, was probably not optimal for institutional administrators or subjects.

Both versions of the survey contains spaces for general comments under two headings.

The first states:

Please use this space to comment on this pilot questionnaire. As this is the first time this questionnaire has been tried we would value your comments. Were there questions you did not understand, or ones in which the meaning seemed ambiguous? Were there issues not addressed that you feel should have been included?

The second states:

Please use this space to comment on your higher degree research experience.

An analysis of these general comments enables us to make some provisional observations concerning the data flowing from the PREQ survey. In both versions of the survey a considerable proportion of the questions were allocated to the topics which most notably arose in the focus group and consultation stage

- the standard of supervision (or the supervisory relationship)

- the thesis examination process
- and infrastructure issues (provision of services and facilities).

For example, in the 'satisfaction' version of the questionnaire, 21 of the 65 questions are devoted to the topic of supervision.

It appears that the survey is tapping into concerns shared by a large percentage of the target population, as the majority of respondents' general comments also fell under those three headings identified above.

The incomparably brilliant and generous supervision of X has to be experienced to be believed! Such thoughtful attention, support—and a sharp, critical mind! The ethic of caring nurtured by Prof. Y in the culture of the Institute—so supportive, collaborative and committed—is a wonderful way to support postgraduate research. I was doubly blessed.

The process of submitting my research thesis became a bad joke. By the end of the day I had 8 different versions of how this should be done and left my thesis with the secretary, who put it on the window ledge...a sad denouement to a long and serious commitment, which had been well supported by the department.

This is comforting information for the survey designers, perhaps predictable, and certainly something institutional administrators might even think was self-evident. However, as noted previously, this will be the first time that national data are available against which institutions can compare their own figures.

When pushed a little harder these responses, especially those that are concerned with supervision, reveal some interesting features. A strong trend that emerges in the qualitative analysis is that the survey should cater for multiple supervision more effectively than it does now. Respondents often wish to distinguish between the supervision they received from one person and that which they received from a later (or simultaneous) academic. While a difficult task, the advisory bodies will have to consider ways in which this can be done (if it can be done within the context of the PREQ).

A typical response on this aspect is:

With two supervisors you need a way to discriminate, within the questions, as in some cases one was outstanding and the other was bloody awful.

Also of interest is the number of part-time or distance postgraduate students who felt that the survey, while of relevance, could be extended to incorporate facets of their experience. Thus while the provision of resources (or the failure to provide them) by the host department is of great interest to many students, it is of less interest to external students used to finding or developing their own resources while researching in comparative isolation.

As a part-time external student many of the issues raised were not applicable. There was very little student/supervisor contact unless initiated by the student. This is generally appropriate but not a very supportive approach. It should be made clear that postgraduate studies as an external student are 'up to you' so there are no false expectations of support.

This issue somewhat reflects the nature of the pilot instruments, which concentrated on the actual items and not on supporting demographic items. When the PREQ is attached to the GDS, breakdowns and analysis by aspects such as part-time and/or external enrolment will be possible. However, the number of such comments indicates that these students have some real concerns and that these should be addressed fully in PREQ data analysis.

CONCLUSION

As with the CEQ, it is not expected that the data gathered by the PREQ will supplant institutions' own research into this area. It is hoped that the PREQ data will add to institutions' data by giving them national figures which will offer context and comparability. Sensible and thoughtful use of such data will assist institutions' understanding of the experience of research higher degree graduates and this can only be of benefit to all parties, and to higher education in general.

Then future PREQ responses may mostly be along the following lines:

My higher degree research experience was excellent—some of the best years of my life! The support from the department (animal science) was tremendous. I developed analytical, critical and general research skills that are essential to my professional work. I developed personally, which is an important part of the process.

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**POSTGRADUATE RESEARCH
EXPERIENCE QUESTIONNAIRE**

PILOT SURVEY

**NOT AVAILABLE
ELECTRONICALLY**

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MONITORING QUALITY IN GRADUATE EDUCATION SUPERVISION

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INTRODUCTION

The university sector of tertiary education has the responsibility for carrying out the most advanced educational functions and, to do this, it needs to be deeply involved in research....The universities are also training the research workers of the future and those who will apply research results and methods in industry, government service, and society at large. The quality of the university research effort is therefore of the greatest importance to the nation as a whole; and higher degree graduates are a national resource whose quality and number materially affect the welfare of the nation. (Australian Vice-Chancellors' Committee, 1978)

Most in-depth studies of evaluation in higher education have, not surprisingly, focused on undergraduate teaching and learning. Nevertheless, Chapter 11 of Ramsden (1992) has much to offer the reflective supervisor and graduate dean. In particular, Ramsden points out the two quite different goals which monitoring the performance of supervision can encompass: "The first is the idea of evaluation as development: the positive and constructive identification of a person's needs in the area of improving teaching, the provision of feedback on teaching performance, and assistance with improvement so that effectiveness is increased. The second goal is the control of the system's personnel so that they become accountable for increased efficiency and effectiveness" (p. 224). The primary emphasis in this paper is on the second of these two goals, with the understanding that the first can be addressed by the graduate school with those supervisors who are interested.

EXPANDING POSTGRADUATE SECTOR

The postgraduate sector in Australia has shown an extraordinary expansion. This expansion has resulted from responses of individual institutions to market signals. Postgraduate students have presented universities in Australia with one of the few opportunities for growth as their undergraduate expansion has, to a large extent, been capped. According to Siddle (1997)

Research higher degrees training has shown marked growth during the past decade with numbers increasing by 141 percent from 13,896 in 1986 to 33,560 in 1996. Of the 33,560 students enrolled

22,525 are PhD students and 11, 035 are undertaking masters by research.

There has also been a dramatic change in the age profile of graduate students. In the not-so-distant past, most went into graduate study after completion of their undergraduate education. Compare the age distribution of graduate students at University of Technology, Sydney (UTS) in 1996 in Table 1.

Table 1. UTS Research Students' Age Statistics as at 1st October 1996, (Females 227, Males 466)

Age (years)	<25	25-29	30-34	35-39	>39
Full Time	34	69	59	35	55
Part Time	7	55	81	82	246
	41	124	140	117	301

Source: *In Touch* 2,2,1996

The student population has changed from a situation where most were in their early to mid twenties to a position where most are aged thirty plus. Thus, student expectations and demands have changed. Clearly, universities cannot ignore the realities of the market place, but equally clearly, the standards of programs and the levels of achievement of the students have to be monitored to preserve and enhance the reputation of the university. University graduate schools and deans and directors of graduate studies face the challenge of accommodating a student profile which is more diverse in age and interests.

POSTGRADUATE PRESSURES

Universities in Australia have, in recent years, been increasingly subjected to pressure from government and other funding bodies to improve the efficiency and effectiveness—quality, if you will—of postgraduate education. Selectivity in research funding has also sharpened. The increasing size and scale of the postgraduate sector as well as pressures on resources have led to intensive discussions on how best to maintain quality and standards.

The increasing length of time that usually elapses between receipt of a first degree and that of a doctorate—the time-to-degree—as well as the upward drift in withdrawal rates are also clearly matters of great concern to supervisors, universities and governments.

Another confounding issue has been the extra demand on doctoral students in terms of coursework. Australia traditionally inherited the British style PhD with candidature almost exclusively devoted to the thesis. Increasingly, many PhD students are being required to satisfy some coursework requirements. At the same time there has been an explosion of *professional* doctorates, sometimes called *taught* doctorates. A more detailed consideration of the issues concerning professional doctorates may be found in Shannon and Sekhon (1996), Sekhon and Shannon (1996) and Sekhon (1989). In order to maintain parity of esteem among all doctoral programs in Australia, there is much current discussion about their academic requirements in terms of entry conditions, duration and assessment as well as their epistemological foundations.

The recent Harris Report of Postgraduate Education in the United Kingdom (HEFCE, 1996) argues for universities to give transparent, accurate information, the need for a typologically-arranged directory of courses as well as for the need to move towards a coherent and consistent nomenclature of qualifications. The Review maintains that effective postgraduate (research) education hinges critically on the concentration of postgraduate (research) activity in centres of excellence as well as on the availability of talented and experienced researchers willing and able to supervise.

In the UK too there has been the spectacular growth of the UK Council on Graduate Education with its focus on quality and standards (Burgess, 1997) as well as the *taught* or *professional* doctorate (Westcott, 1997). In Australia too we are experiencing a growth in these doctorates (Trigwell *et al*, 1997), and a Council of Deans/Directors of Graduate Education in Australian Universities has emerged (Shannon, 1997) with a similar purpose.

SUPERVISORS' WORKLOADS

Effective supervision of postgraduates invariably requires periods of uninterrupted time. These periods, however, have become scarce in the wake of declining government funding, as supervisors are increasingly asked to perform administrative tasks at short notice and certainly without resources to support them. Many supervisors share the view expressed by the Canadian graduate coordinators:

The other problem is a crushing and increasing workload caused by...underfunding. Supervisors who have to do their own typing, data entry, heavy teaching, heavy administration, just don't have time to supervise as well as they might. Most are [extremely] stressed. (Holdaway, Deblois, Winchester, 1995)

QUALITY ASSURANCE MECHANISMS—AN EXAMPLE

The scope and number of principles to guide 'quality assurance' in postgraduate supervision are boundless, and their effectiveness is limited only by the resources available to implement them. The following guidelines (currently in place at the University Graduate School, at the University of Technology, Sydney (UTS)), illustrate some of the important mechanisms for improving the quality of postgraduate supervision. Other universities have similar guidelines in place, particularly with regard to induction programs for supervisors and postgraduates, codes of practice, evaluation of success, so this serves only as an example that works.

- Workshops for staff on supervisory practices, in association with the University's Centre for Learning and Teaching;
- University-wide workshops for graduate students on research methodology, experimental design, inferential statistics, use of computer packages for qualitative and quantitative research, meta-analysis for literature review;

- The Research Degree Induction Program, conducted each semester, designed to develop research skills of those students who are new to the research process;
- The publication of a Register of Supervisors of Doctoral Degrees;
- Division of the research degree candidature into two parts, with formal assessment of progress at the end of the first part;
- The publication of a separate *Code of Practice* for doctoral degree and masters-by-thesis candidates and supervisors;
- The collation of summaries of theses examiners' comments for the guidance of inexperienced supervisors and for the benefit of students;
- Emphasis, prior to candidature, on suitable research background, appropriate to the proposed program of research;
- Structured planning of the research program prior to candidature;
- The requirement of at least two supervisors to act as a 'safety-net'; and
- The setting up of the University Statistical Consulting Service (USCS) (a joint venture with the School of Mathematical Sciences). Postgraduate students are encouraged to see a member of the USCS during the planning of their research program. This service can add much value to research proposals and theses, as consultants can offer assistance with the planning and design of experiments and surveys and ensure that the results are recorded in a form appropriate for future analysis.

EVALUATION OF RESEARCH DEGREE SUPERVISION : SURVEYS AND QUESTIONNAIRES

The UGS routinely administers three *Evaluation of Research Degree Supervision Questionnaires* to research students:

- Discontinuation of Research Degree Candidature: Exit Survey, to all withdrawing research students;
- End of First Year Report to research students completing the first year of candidature;
- Completion of Degree Report to all graduating research students.

The primary objective of undertaking this evaluation is to provide an insight into students' perceptions on the quality of the research environment including, supervision and institutional support. Results of the survey serve as an instrument to enhance research policy and development at the University.

Each year, the UGS produces the *Report on Research Degree Student Evaluation Questionnaires*, which tabulates student responses to a range of questions regarding their experience as research degree candidates at the University.

The qualitative data is supplemented by a sample of student comments in each survey category to capture further information. Great care is taken to preserve the

anonymity of respondents, but some choose to identify themselves for various personal reasons or to elaborate on comments given in the survey.

From talking to some students who identified themselves deliberately, it is becoming clear to UGS that there are some supervisors who should be ‘deregistered’ as supervisors. These supervisors’ own academic supervisors do not agree when it has been raised with them, perhaps because in all cases they are above average researchers. However, some are unable to establish reasonable working relationships with students, some are too disorganised for their students to make reasonable progress, and others have a poor record with their students, as is apparent when their theses are examined.

A very important aspect of the research environment facing research higher degree students is supervisory arrangements. Supervisors have a critical role and responsibility in determining both successful completion of a research higher degree and ensuring candidates complete in reasonable times.

Table 2 records the perceptions of students of supervisors expressed as an average number on a 5 point scale at the end of their first year in 1995, while Table 3 gives the views of graduating students in the Autumn Semester 1996, using a 5 point scale (with 1 representing ‘strongly agree’ and 5 representing ‘strongly disagree’).

Table 2. End of First Year: Student Perceptions of Their Supervisors

Question	Masters	Doctorate	Male	Female	Full Time	Part Time	Total	
Accessibility	2 3	1 4	1 3	1 3	1 3	2 3	2 3	P* C
Up-to-date	2 3	1 5	1 4	1 4	1 3	2 4	1 4	P C
Feedback	2 3	1 5	1 3	2 4	1 3	2 3	2 3	P C
Networking	2 3	1 5	2 4	2 4	1 4	3 5	2 4	P C

* P: Principal Supervisor C: Co-supervisor(s)

Table 3. Completion of Degree: Student Perceptions of Their Supervisors

Question	Masters	Doctorate	Male	Female	Full Time	Part Time	Total	
Accessibility	2 4	2 2	2 2	2 2	2 2	2 2	2 2	P C
Up-to-date	2 4	2 2	2 2	2 1	2 2	3 2	3 2	P C
Working together	3 5	2 2	3 3	2 1	2 2	4 3	3 2	P C
Research Plan	2 5	2 2	2 2	2 1	2 2	3 3	2 2	P C

Tables 2 and 3 indicate that research degree candidates have quite different perceptions about their principal and co-supervisors. To some extent this is not surprising, because they have different roles, ranging from one where a principal

supervisor may merely be first among equals to one where the co-supervisor is rarely consulted. Nevertheless, there are very real differences between the views of candidates at the end of their first year in 1995 (Table 2) and those of graduating students in Autumn Semester 1996 (Table 3). The graduates have rather negative views of their co-supervisors, some of which may be explained by the fact that the requirement for two supervisors only became mandatory during the course of their candidature, and for some this was unplanned. However, the issues of co-supervision require more discussion throughout the university.

EVALUATION OF RESEARCH DEGREES SUPERVISION: END OF FIRST YEAR REPORT SPRING 1996

At the end of the first year, masters-by-research and PhD students were asked to rate a range of issues of relevance to research studies. Table 4 provides an overview of the information collected as part of the questionnaire survey. The results in the last column present the average score of respondent ratings, using a 5-point scale (with 1 representing 'strongly agree' and 5 representing 'strongly disagree').

The results presented in Table 4 indicate that at the end of the first year, students displayed favourable satisfaction levels on the responsibilities of supervisors in such areas as accessibility command of current knowledge, and writing help and the adequacy of institutional support (resources and a place to work).

Table 4: Students' Ratings on Supervision and Institutional Support: End of First Year Report, Spring 1996, N=27

Question		Masters	Doctorate	Male	Female	FT	PT	Average
Accessibility	P	2	2	2	2	2	2	2
	C	2	2	2	2	2	2	2
Up-to-date	P	2	2	2	2	2	2	2
	C	2	2	2	2	2	2	2
Working together	P	3	3	2	3	2	3	3
	C	2	3	3	3	3	3	3
Research Plan	P	3	2	2	2	2	2	2
	C	2	3	2	3	2	2	2
Writing help		2	2	3	2	2	2	2
Place to work		2	2	2	2	2	2	2
Social		2	2	2	3	2	3	2
Resources		2	2	2	2	2	2	2
Average		2+	2+	2+	2+	2+	2+	
Column numbers		5	22	10	17	11	16	27

Nonetheless, while most students appeared to be relatively satisfied with their supervisors, the comments section appended to the questionnaire revealed that some of research higher degree students had serious problems with their supervisors.

Some of the general comments by individual students are quite alarming. A follow up of two complaints revealed that supervisors had been changed by Faculties from those approved by the Graduate School Board without reference to or approval from the University Graduate School. A difficulty of communication

has been to get all Faculties to refine the University's core criteria for registration as a supervisor and then to have the Faculties adhere to the criteria.

It is the opinion of the UGS—not shared by all Faculties—that once research degree students are enrolled it is incumbent on *both* supervisors *and* candidates to adhere to the Code of Practice. One such code is the requirement to meet at least monthly *in some way*, but this does not happen in many cases. Candidates can easily drift apart from their supervisors to the point where the thesis topic is in fact, if not in (registered) name, quite different from that which was originally approved. Moreover, irregular contact makes it almost impossible for supervisors to make a realistic appraisal of a candidate's progress for the end of semester report.

EVALUATION OF RESEARCH DEGREES SUPERVISION: COMPLETION OF DEGREE REPORT SPRING 1996 AND AUTUMN 1997 SEMESTERS

The views and attitudes of graduating students (N=17) were explored with respect to the research environment they experienced. The respondents were asked to rate a number of issues germane to the research degrees they were pursuing.

The data indicate that the most satisfactory areas of supervision were accessibility, competence and mentoring. However, items such as conferences, examiners' comments and thesis-time attracted low ratings. Relatively neutral responses were obtained in areas of publishing and networking.

We merged some of the data to obtain snapshots with more perspective on the graduating students' perceptions. The categories in this merger are set out in Table 5.

Table 5. Categories of Evaluation

<i>Research skills:</i>	up-to-date	<i>Mentoring skills:</i>	accessibility
	technically		good mentors
	competent		authorship
	research plan		publishing
	literature		presentation
	thesis construction		prompt replies
			feedback
			networking
<i>Research environment:</i>	workplace	<i>Research assessment:</i>	thesis time
	mixing		examiners' comments
	resources		doctoral assessment
	conferences		

The merged data produced findings shown in Table 6.

Table 6. Merged Data

	Autumn 96	Spring 96	Autumn 97
<i>Research Skills</i>			
Principal Supervisor	1+	2	2
Co-supervisors	3+	2	2-
<i>Mentoring Skills</i>			
Principal Supervisors	2-	2	2
Co-supervisors	4-	2	2
<i>Research Environment</i>	3	3-	3-
<i>Research Assessment</i>	3-	4-	2+

Perhaps the most dramatic change has been in the perception of co-supervision by the respondents. A possible explanation is the increasing scrutiny of co-supervisors by the Faculties. No longer are they merely a name on a piece of paper. Increasingly, they are being expected to make a positive contribution by supplementing and complementing the research skills of the principal supervisor or by acting at the critical stage in the development of the topic and the construction of the thesis (Shannon and Duffield, 1996).

While a few students complained about lack of knowledge of the processes, it is clear that quite a few supervisors are also unaware of them and the documents which explain them. This is often seen in the varying styles of thesis presentation, a number of which still draw adverse comments from thesis examiners.

CONCLUDING COMMENTS

Some supervisors react negatively to what they see as directions from the University Graduate School when they receive copies of guidelines. Others apparently never receive their copies! Both the University Graduate School and responsible academic officers in the Faculties need to ensure that all research degree students, if not their supervisors, are aware of guidelines and other avenues of help available to them.

Reference was made earlier to workshops which have been run at the University of Technology, Sydney for research degree supervisors. Furthermore, the University policy document lists, among a number of alternatives in the criteria for registration as a supervisor, that supervisors “agree to attend workshops in research degree supervision where and when appropriate”. Whose responsibility should it be to mount such programs and where do the resources come from? Are such workshops effective, and if so, in what sense? Leeds Metropolitan University has started to formalise them in a Post Graduate Certificate in Research Methodology (Green, 1996). Is this the way to go? What are the experiences of other graduate schools in the formal and substantial accreditation of research degree supervisors? Is it simpler and easier to monitor if a necessary and sufficient condition for being a supervisor is membership of a graduate school? How does one prepare and supervise supervisors of research degree work at sites external to the University? These kinds of questions have not been squarely faced

by many institutions of higher education. The need to address such questions is urgent.

This paper has looked at how one university is attempting to deal with supervision, a major issue in graduate education. We do not claim to have all of the answers. It is our hope that by pooling our ideas at this national conference, we may have a clearer idea of what constitutes best practice as we move towards the challenges of graduate education in the new millennium.

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SUPERVISION AS COLLABORATIVE PROBLEM- SOLVING: AN INTEGRATIVE APPROACH TO POSTGRADUATE RESEARCH EDUCATION

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ABSTRACT

Students are now undertaking higher research degrees for many reasons, and their future employment prospects often lie outside of the university system. Traditional approaches to supervision may no longer serve these broader aims. We propose that reframing supervision as a collaborative problem-solving process may help supervisors and students achieve these goals more effectively. Drawing on theories of counselling supervision and conflict resolution, as well as our own experiences as supervisors, we first explicitly state the values and assumptions we make about postgraduate research education. The role of the supervisor from this perspective is then addressed. The multiple roles that supervisors assume are outlined. The implications of treating supervision as a dynamic process, with due regard for both the persons involved and for the tasks to be accomplished are considered. The importance of negotiation, aiming for integrative solutions, is emphasised. Developmental aspects of the supervision relationship, encouraging the growth of mature interdependence, are briefly examined. Novel ways of approaching the supervision contract concept, retaining its strengths while attenuating some of its limitations, are suggested. Finally, as an antidote to the pessimism that can accompany the increasing workloads and pressures of research supervisors, a way of conceptualising the reciprocal learning that can occur in supervision is presented.

MODELS OF SUPERVISION AND THEIR IMPLICIT ASSUMPTIONS

In some mythical past, supervision of a research candidate was fairly straightforward. Everyone knew what the goals of a research degree were. Basically, they were to create an academic, a person who was fundamentally devoted to, and intrinsically interested in, research in a particular field. Teaching and supervision of others were two minor goals of a research degree, overshadowed by the former. Achieving the goal of becoming an academic, it was assumed, virtually guaranteed that the latter two would automatically follow. In this golden past, two extremes of supervision style could be identified. The first

may be characterised as ‘expert-centred’. The student filled an apprenticeship role, watching and imitating the ‘master’ who demonstrated the esoteric practices that needed to be acquired in order to pursue research in that particular field. The second may be termed ‘experience-centred’. The student was left up to her/his own devices while the supervisor allowed the learning to take place almost unhindered. The two might meet occasionally, with the supervisor acting as a sounding board, resonating to the students’ ideas, but input from the supervisor was minimal so as not to impede the unfolding process. These two grossly oversimplified descriptions illustrate that approaches to research supervision are laden with implicit assumptions and values about the nature of learning, the goals of research degrees, and the best ways of achieving those goals.

The golden age, if it ever existed, has well and truly passed. Today, students are completing higher research degrees for reasons other than wanting to become academics themselves. Employers are increasingly valuing the learning outcomes that can occur as a result of completing a well-planned postgraduate research degree. We also recognise that the two other goals, those of teaching and of being able to supervise others, do not necessarily occur automatically. Universities and educators need to consider, deliberately and consciously, how these broader outcomes can be achieved within the traditional Australian PhD or Masters research degree.

THE COLLABORATIVE PROBLEM-SOLVING MODEL

We propose that the goals of the new research degree may best be achieved through a collaborative problem-solving model. The ideas presented here are based on our discussions in preparing for and arising out of a workshop on supervision we presented to colleagues last year. They are informed by a number of theoretical sources, in particular those of counselling supervision and conflict resolution, and by our own experiences. The model emphasises that the process of planning a successful research candidature is a mutual collegial and collaborative exercise, which requires a deliberate consideration of one's assumptions concerning the processes of supervision, and the experience of being supervised. In this paper, we first outline some of the core values and assumptions that we make in our practice as supervisors, to show how a collaborative problem-solving approach to supervision can enhance the experience of a postgraduate research degree.

In our view, the PhD should ideally aim to help develop the whole person (see figure 1). The candidate is not merely learning how to execute some complex yet narrow technical skills, such as how to splice a gene. While these skills are an important and discipline-relevant set of outcomes, they are not the only nor, perhaps, the most important, set. The ideal PhD program will aim to do more than achieve simple changes in cognitive content or specific discipline-related knowledge. A great deal of metacognitive change must also be aimed for. First

and foremost, the candidate must learn to be a ‘self-reflective’ individual. This goal relates to the notion of the person being able to stand aside, metaphorically, from the self, and scrutinise one’s own thoughts and actions (Schon, 1987). Candidates must learn how to develop original ideas and questions from scratch, and how to put these ideas into practice, following a lengthy and difficult gestation, to see them through to their final form as products of one type or another. The content may be academic in nature, but it may also be a commercial or industrial activity. It is the process of self-appraisal that is the key feature.

Also, the candidates must be able to reflect on this process and determine how to help others develop in this manner. They have to consider how they will try to bring the best out in their students or other workers and thus ensure their optimal development. Employers are increasingly looking for leaders who are able to enrich the human capital of their organisations, as changes in the workplace demand greater adaptability and innovation. Once more, the task calls for reflection on matters such as individual differences in learning style, methods of teaching, and the role of participant modelling in the development process (Hosford & Barmann, 1983).

Many of the changes will occur at the affective level. There are changes in self-concept, for example, as the student learns to see him or her self as a real researcher, or more generally, as an innovator (Hosford & Barmann, 1983). They ideally learn to value such rigorous, demanding activities for their own sake, and to nurture their intrinsic motivation to ask why and to try and answer their question. We hope they also learn to cherish collaborative working relationships that have the potential to bring out the best in all those involved. Once more, these affective qualities translate readily into desirable outcomes for those who find employment in the world of commerce or industry. Personal efficacy, intrinsic motivation and collaborative teamwork skills are highly sought-after qualities in the job market-place.

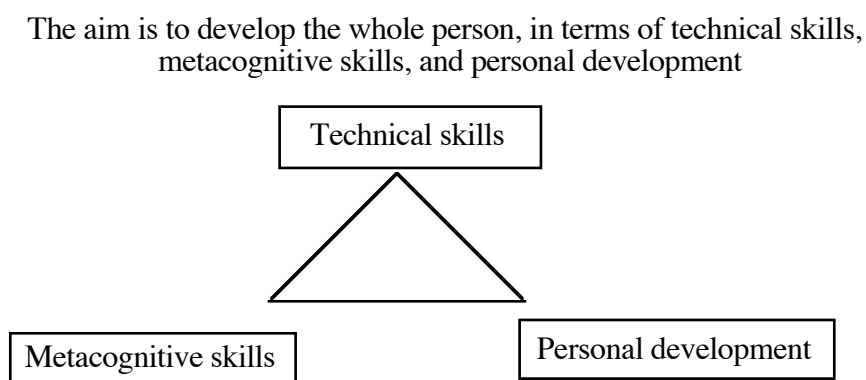


Figure 1. The domain of postgraduate study from this perspective

THE ROLE OF SUPERVISOR WITHIN THIS APPROACH

While these desirable features are gaining widespread support among educators, they are not by any means the universal experience of every new or recent PhD student (see Goodyear, Crego, & Johnston, 1992, for a list of critical incidents that can create ethical problems in supervision). Supervisors who wish to adopt these values are still left with the question of how to actualise them amidst the day-to-day demands of teaching and research activities. New supervisors, in particular, are often anxious and concerned about the tasks that confronts them. After all, the only basis on which they have to build is probably their own experience of supervision. They have been supervised at some point, so it is widely assumed they therefore must be capable of supervising others. By that logic, a patient awaiting a quadruple bypass operation will soon be on the way to becoming a heart surgeon. Despite the obvious need, traditionally there has not been compulsory 'how to do it yourself' classes in supervision for would-be academics. Although the practice has gained some acceptance in recent years, mainly through enterprise bargaining agreements, currently it is still not widespread. New supervisors mainly have to learn from experience; yet experience alone can be an unsatisfactory form of education. If we do not pause and deliberately reflect on what we are doing and why, then learning by doing may become a recipe for repeating old errors.

The first point to consider is that supervision involves multiple roles (Blocher, 1983). At various times, the supervisor will adopt many roles, such as teacher, as consultant, as colleague, and evaluator. Each demands different activities on the supervisor's part, and different styles of interaction with the student. In terms of self-awareness, the supervisor must be able to stand above these roles and be conscious of their separate demands, when each one is required, and how to perform each one in an apparently effortless manner. Consideration of supervision roles is a valuable step to performing the task more effectively.

Secondly, supervision is a process, and by implication, it is not a static thing; rather it is a dynamic relationship between two or more people (Hess, 1980). The multiple roles described above demands great flexibility of the supervisor. The supervision process itself is an important part of the learning that takes place. This means we reject the two extremes of supervision outlined above. The 'do as I say and do' approach of the expert-centred model focuses too much on the tangible outcomes of the research degree, such as the thesis and the publication, as well as the gaining of explicit knowledge and skills. The 'do as you feel you should' approach of the experiential-centred model, does not allow the supervisor to guide or shape the relationship as effectively as we are suggesting one should. A collaborative process more effectively allows for the desired outcomes of developing the whole person to merge. To use the language of managerial theorists, the emphasis is on maximum concern for *both* the person and the task (Fisher & Brown, 1989).

Emphasising the managerial aspects of the supervisors' tasks does not thereby valorize a paternalistic, authoritarian approach to supervision. It does not advocate telling students what to do next, in a highly directive fashion. Rather, the approach emphasises the higher-level decision control that the supervisor exercises. A manager, from this perspective, is both proactive and consultative. He or she focuses on both the short-term, process-oriented goals, as well as the long-term, outcome-oriented goals of the research degree. The students are encouraged, through the process, to take increasing responsibility for deciding the day-to-day issues, which ensure that the long-term goals are achieved. It is akin to saying "If we have to be at point G in six months time, What do we have to do now to achieve E & F in order to get to G? You tell me how you intend to achieve them."

The notion of the supervisor as manager alleviates the need of beginning supervisors to be seen as all knowledgeable. From this perspective, one can be knowledgeable enough to create an effective learning environment, without having to imply perfection in everything one does. Such a perspective may help relieve the new supervisor of an onerous yet unnecessary, self-imposed burden of having to appear omniscient. They can be more comfortable with themselves, their new roles, and with not having all the answers. It becomes much easier to refer to another authority, say, a statistics consultant, instead of trying to avoid the problem and create greater anxiety as a consequence. It also places greater responsibility on supervisors to learn more about the particular issues at stake. Most of us will have heard of stories of supervisors fobbing their students off onto others. There is a responsibility for the supervisor to ensure that the consultancy is properly directed. This means that the supervisor becomes an active participant in the learning process, to the extent where he or she may actually attend the consultation sessions. This approach has the added benefit of symbolically modelling for the candidate an appropriate attitude of resilience and coping in the face of uncertainty. Such an attitude can help counter-act the damaging myth many students accept, that somehow their theses have to be flawless and beyond reproach, which often leads to excessive anxiety and immobility when faced with the prospect of failure to achieve these implausible standards (Connell, 1985).

A supervisor has needs too. In this idealised process being outlined, we have to ensure that those needs are not neglected, otherwise supervision becomes an onerous burden. These needs may be of a very practical nature, such as ensuring that joint authorship is agreed upon well ahead of any submission dates. The time to negotiate such matters is not when the final draft is being proofread. It is best done before any serious work begins on the project, with clear guidelines being adopted as objective criteria against which to assess contributions (e.g., Fine & Kurdek, 1993). Needs may also involve less tangible matters, such as the respect that is shown by ensuring drafts are delivered in a timely fashion. Of course, the supervisor will have agreed to return the draft within a reasonable time too.

Generally speaking, a clear, explicit statement of expectations of the collaboration will ensure that the needs of both supervisor and student are not neglected.

NEGOTIATING THE SUPERVISION RELATIONSHIP

Negotiation between supervisors and students lies at the heart of collaborative problem-solving (Wertheim, Love, Littlefield, & Peck, 1992). From this perspective, negotiation differs from approaches that are power-based, structured around a one-way information flow, and from rights-based approaches that emphasise legalistic adherence to guidelines.

The problem-solving approach adopts a needs-based perspective on the dilemma that the two parties face. It requires that both sides be able to take the perspective of the other person and see the questions from his or her side or viewpoint. This allows the supervisor to be supportive and show real care for the person while at the same time being as tough as possible on the problems they encounter. It is growth-oriented, as the unique perspective of the supervisor allows him or her to set goals that are designed to challenge the student, without being overwhelming or threatening. It is impossible to equalise the relationship fully, as the student is coming to the supervision process with needs for supervision and mentoring. There is also a need to follow guidelines, which are established to protect both parties and ensure quality outcomes. Nonetheless, we have found that when an open, collaborative process between supervisor and student is fostered, both can learn and grow from the process.

A developmental approach also ensures that the supervision is responsibility-focussed, with the student moving from an almost entirely dependent position in relation to the supervisor, to one of mature interdependency (Stoltenberg, McNeill, & Crethar, 1995). Thus the approach tries to reflect the reality of modern organisational life, rather than perpetuate the stereotype of the isolated academic. This view rejects an ideology of autonomous individualism in favour of one acknowledging that activities increasingly rely on organisational teamwork and collective efforts. The proven ability of students to work effectively within collaborative relationships is a vocational outcome of graduate education that is highly prized by many employers, as was noted earlier, underlining the claim that we have to be aware of the full range of reasons that students now undertake graduate education.

It was also noted earlier that a collaborative approach transforms the traditional, rather paternalistic, view of the supervision relationship from one that is conducted between individuals who are psychologically unequal, to one which identifies that the relationship is conducted between two equals, on an adult-to-adult basis. Two points need to be made here. First, the relationship does not necessarily start off this way. A developmental perspective suggests that we have to expect a process of change from what is frequently an expectation of paternalism on the students' part, to an acceptance by them that they can take their

place in discussions as equals. Supervisors must decide how to create opportunities for developing a greater sense of interdependence. The task is to show individuals the possibilities that derive from taking personal responsibility in relationships and then invite them to risk trying it for themselves. It may take some support and encouragement while they do, and there may be setbacks along the way, before the goal is truly accomplished.

The second point is that equality within the relationship does not mean differences are not taken seriously. The point was made earlier that the supervisor still has roles to perform which are going to place him or her in a position of power over the student, for example, when carrying out evaluations of the student's performance. Equality in this context refers more to the nature of the interpersonal relationship rather than to the roles that each one performs within that relationship. Not surprisingly, this point creates a sense of contradiction for some. There are times when the supervisor has to be very tough and let the candidate know when things are not going right. The ability to offer criticism and feedback, while still maintaining a developmental focus, is probably the most challenging task for a supervisor to accomplish. A balance has to be struck between being supportive and caring, yet tough on the problem. The student has to hear that the comments are not intended as a personal attack, rather they are intended to represent positive feedback, encouraging personal development through changing what one does incorrectly or ineffectively. At the same time, acknowledging what has been done well is also an important part of positive feedback. Explicit recognition of achievements can help build the self-confidence needed to take risks such as presenting work for criticism, while communicating the important messages of trust and concern that are central to this approach.

To summarise, a collaborative approach helps ensure that a balance between challenge and support is maintained and that there is a dynamic interplay between the two forces. The focus stays on the tasks to be achieved, both in terms of process and of outcome, while maximum concern for the individuals involved is maintained. Equality is achieved at the relationship level, even though the different roles ensure that full equality can never be achieved.

AGREEMENTS AND CONTRACTS IN A COLLABORATIVE PROBLEM-SOLVING APPROACH

A common recommendation to supervisors in recent times is to use contracts as the basis for supervision (e.g., Zuber-Skerritt & Ryan, 1994). This approach has lots to recommend it as a way of ensuring that the reciprocal expectations of the supervisor and student are made explicit and public. It is highly compatible with the collaborative problem-solving approach, because it is generated from discussions between supervisor and student. It makes clear the responsibilities of both parties, and it helps promote the self-reflection that is so important. While the contract approach has decided strengths, it has also been criticised for its

potential weaknesses. These include the following views on the contract approach.

- It is too mechanistic. It may imply that supervision is a straightforward, uncomplicated and linear process of cause and effect, rather than a dynamic, recursive relationship.
- It is too facile. The approach implies that supervision is simple, because the supervisor knows all outcomes, etc., in advance. Thus they can be specified in detail and written as outcomes. But even experienced supervisors find the process has unique aspects each time they undertake it and the beginning supervisor is often daunted by the prospect of having to know all the answers.
- It is too rigid. The method suggests that all outcomes for the student are known well ahead of time. This assumption fails to recognise the frequent unexpected developments in the supervision process that can and do occur.
- It is too rights-based. Advocating the use of contracts seems to encourage a set of values that are focussed on the rights of individuals concerned, rather than on their identified needs. This perspective tends to engender a certain type of relationship between the two people involved; one that more easily leads to adversarial-based negotiations.
- It is too confusing. This approach also tends to create uncertainty, because, in recent years, there has been a greater emphasis on the contractual nature of the university-candidate relationship, as economic imperatives have had greater impact on tertiary education. Replicating this economic arrangement at the interpersonal level could have unfortunate implications for the relationship.

The challenge is to retain the advantages of the contract concept, yet minimise some of its potential weaknesses. We argue that a supervision relationship based on the values and assumptions we have outlined earlier provides this possibility. In the first place, the collaborative nature of the relationship ensures that the explicitness required for the contract is easier to achieve. Often, contracts are expressed in terms that are too general to be of much use. For example, a clause might read, 'To have prepared a literature review by July.' Such level of detail is not sufficient to ensure that the necessary steps along the way will be achieved. Attainment of the goal requires constant monitoring, to ensure that sub-goals are being met in a timely fashion. As discussions are going on constantly, across the life of the supervision, it is much easier to ensure that the monitoring process takes place. Goal-setting then becomes of real benefit to both student and supervisor.

A second point is that the word 'contract' may be replaced by 'agreement' in negotiations of this type. This is a small but symbolic change. In the context of a collaborative relationship, agreement has far more positive connotations. It invites a personal response, and emphasises the interpersonal nature of the arrangement, which is based on trust and empathy. It de-emphasises the legalistic connotations

of the term contract and helps avoid a rights-based, confrontationalist style of interaction that may undermine the goals of tertiary education.

Finally, the collaborative approach helps promote more regular, formal meetings between supervisor and student. Invitations to, 'Drop by and see me if you're having problems', are less frequent, and specific appointments at a given time and place, become the norm. Regular meetings provide an excellent opportunity to employ supervision logbooks (Yeatman, 1995). The technique is for the student to write a two-page summary of what transpired during supervision. The summary commences with a statement of the goal for the session. It then includes a description, written in formal prose style, of the discussions. It finishes with a statement of the next task to be completed by the students and the arrangements for the next meeting. The student keeps a copy and the original is handed to the supervisor at the earliest opportunity.

According to Yeatman, this technique accomplishes a number of things. It ensures the student produces a focussed piece of writing each meeting that can accumulate into a series. It also provides structure for the next task, both in terms of content and a timeline, which is explicitly negotiated by the two parties. A logbook may also accommodate the supervisors' needs and responsibilities by implicitly tying in their contribution to achieving the goals. There is yet another benefit; it is that the larger goals of the supervision contract are made more attainable, because the steps to achieving the goals are specified in detail.

Other media, such as the use of tape-recorded sessions, can be employed in a similar manner. We have found that this approach works particularly well when the last part of the tape is devoted to negotiating the next set of expectations. This has the advantage of providing students with a chance to revisit the discussion and hear how they have been able to speak about their research when prompted by the supervisor. Use of regular and structured email communication may also be used to foster the feeling of continually negotiating the contract.

In sum, the strengths of the contract concept can be retained and the potential weaknesses diminished, if the collaborative relationship can be used to constantly renegotiate the supervision contract. This integration may be achieved by a process of specifying, or operationalising, the individual steps that have to be taken if the broader goals are to be attained, by carefully documenting those discussions, and by making agreements, through a variety of means, that spell out the contributions that are to be made by each party. The tight structuring and the explicit nature of the arrangements remain, without losing the essential personal aspects of the relationship, such as trust and commitment.

THE RECIPROCAL NATURE OF LEARNING IN THIS MODEL

Another aspect that deserves elaboration is the nature of the learning relationship that the collaborative approach provides both the student and the supervisor

(Connell, 1985). Figure 2 helps explain the different forms of learning that can occur. First, we can identify knowledge that is available to both the supervisor and the student. This includes the standard content of most supervision meetings; e.g., “I want you now to draft the second part of the literature review, summarising the material we have been discussing.” This area is labelled ‘Shared knowledge’. We can also identify areas that the student does not know but to which the supervisor has access; e.g., “You haven’t considered structural equation modelling as a solution to your dilemma. Perhaps you could read this book on the topic and tell me what you think about the approach next time?” This quadrant is named ‘Teaching and learning’.

The next two possibilities are more interesting. In this approach the student may impart knowledge to the supervisor, an effect that is sometimes referred to as ‘Backwash’. This is an important part of the developmental process for the student. No longer is the academic the fountain of all knowledge, as the student outpaces the mentor and becomes the provider in turn. Finally, we have identified a fourth area, marked ‘Exploration and discovery’, to indicate that at its very best, the process of supervision can be a very rewarding journey, taking both the supervisor and the student into uncharted waters where they can make exciting and novel discoveries.

In the ideal case, a candidature would commence with a chart that had a fairly tall and narrow left hand quadrants, with two large right hand quadrants. By the end of candidature, the vertical axis would have moved to the right, drastically reducing the size of the right hand quadrants and increasing those of the left. The essential point is, therefore, to maintain flexible boundaries between the quadrants, so that movement can easily occur. This flexibility may best be maintained, we argue, by adopting a collaborative problem-solving approach to supervision. In this manner, supervisors, faced with an increasing workload and greater demands on their time, may at least be able to take some comfort in the belief that education still has its own rewards.

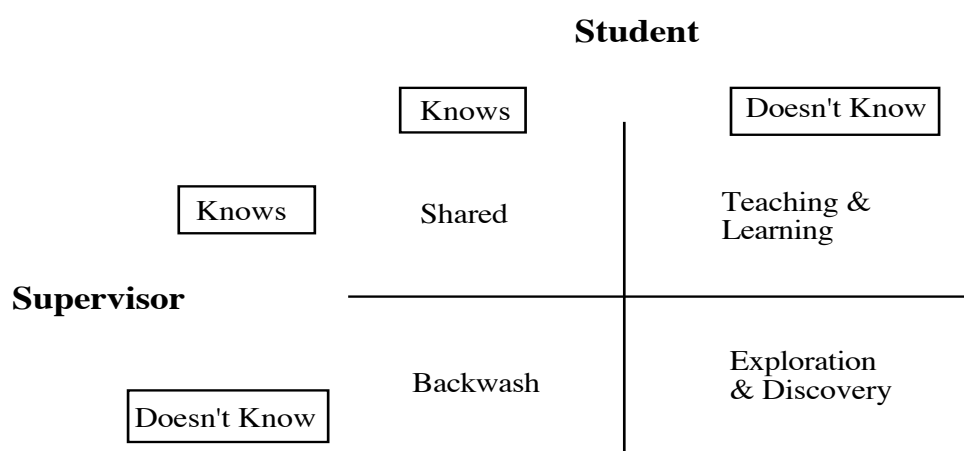


Figure 2. Knowledge Sharing in the Supervision Relationship

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MANAGEMENT OF THE PHD PROCESS: THE CHALLENGING ROLE OF THE SUPERVISOR

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ABSTRACT

Scholarly works in the fields of management and leadership have provided immense benefit to organisations. Improved corporate efficiency and effectiveness is one such outcome. At a personal level managers have a better understanding of their roles and of what contributes to 'best practice' in contemporary environments.

It is my contention that generic research on leadership and management has much to offer those responsible for the academic supervision of research students—particularly the PhD students. The analogies between the two 'supervisory' roles are clear and, it is submitted, the lessons of good practice can easily be transferred from corporate to academic.

The role of the Supervisor is becoming more complex and challenging in the changing academic environment. Supervisors not only have to deliver outstanding academic performance but they must also keep an eye on the money—helping their University to reduce its costs and/or to generate revenue. They are expected to process as many students through as they can, to do it quickly, to manage a diverse student group, and to supervise from a distance all without sacrificing standards and quality. The Supervisor must successfully manage their research students to complete their theses and to engage in research that is of interest to government and industry so that these institutions can help with research funding. To achieve these outcomes Supervisors must manage the research process—the journey through the PhD.

The Supervisor's job is not unlike that of an effective manager in a viable organisation. A model of management, the Competing Values Framework will be used, to illustrate what capabilities the effective Supervisor needs to possess.

INTRODUCTION

Effective managers must be able to read their organisation and assess which leadership qualities are needed. They must be able to make an accurate assessment of the various requests made of them and be able to deliver the appropriate response. They must be able to draw on a range of responses available and be able to move with ease from one to the other. Sometimes these various

responses will appear paradoxical. Finally, they must be able to lift themselves above the day to day activities and to take a strategic perspective: to be a 'helicopter'. In this context they must also critically review their own capabilities

Similarly, the Supervisor has an important role to play in the successful completion of doctoral students research programs. The Supervisor must manage the PhD process—the journey through the PhD. Good Supervisors are innovative, creative problem solvers, resource oriented, work focused, decisive, dependable, technically expert, a facilitator, caring and empathetic. They are able to assess which of these qualities are needed at different times on the journey through the doctoral program and to deliver each of these qualities with expertise, ease and care. That is, they are able to take a helicopter perspective of the PhD process and its needs and to accurately assess their own capability as a Supervisor.

The analogy between the Supervisor and the manager is a strong. It is this analogy that will be used to better understand the role of the Supervisor. By using the management model, Competing Values Framework, an understanding of the complex role that the Supervisor needs to perform will be achieved. The Competing Values Framework is based on a model developed by Quinn, Faerman, Thompson, and McGrath (1990), Hart and Quinn (1993), O'Neill and Quinn, (1993), Denison, Hooijberg and Quinn (1995) and further developed by the research undertaken by the author (Vilkinas & Cartan, 1994, 1995, 1997).

The underlying capability that managers and Supervisors must possess is the ability to:

1. be aware of all the cues (signals) in their operating environment, both external and internal,
2. accurately read those cues,
3. determine which ones need their attention and which ones can be ignored, and
4. respond appropriately.

This is a challenging task.

It is often the case that managers are required to deliver behaviours that are seemingly paradoxical. That is, managers are required to think and act in ways that come from value bases that are paradoxical in nature. For instance, caring for staff and getting the job done may require skills and thoughts that are paradoxical. Or seeing the big picture and having a eye for detail are also paradoxical in nature. So too must the Supervisor deliver these seemingly paradoxical behaviours. They must at times care for their student's feelings and emotions whilst at the same time ensure they are productive. They must focus on the future and at other times keep a close eye on the student's progress.

The Competing Values Framework will now be explained before moving to the implications for Supervisors.

THE TWO DIMENSIONS TO LEADERSHIP

According to Quinn et al (1990) there are basically two key dimensions to leadership. The first is a Flexibility—Stability dimension and the second is a External—Internal focus dimension (see Table 1). Each end of the two dimensions has a different focus as shown in Table 1.

Table 1: Dimensions of Leadership (Quinn, 1990)

<i>Dimension 1</i>	
Flexibility	Stability
<ul style="list-style-type: none"> • focus on decentralisation • preference for subjectivity and uncertainty • responsive style of leadership that is adaptive and tolerant (democratic) • use of trust and faith 	<ul style="list-style-type: none"> • focus on centralisation • preference for objectivity and certainty • structured formal style of leadership (authoritarian) • use of structure and authority
<i>Dimension 2</i>	
Internal focus	External focus
<ul style="list-style-type: none"> • focus on maintenance of sociotechnical system • preference for withdrawal, reflection and serenity • cooperative and team oriented leadership (synergistic) • use of role modelling and personal attraction 	<ul style="list-style-type: none"> • focus on competitive position of the overall organisation • preference for engagement, tensions, impact and conflict • dynamic, competitive style of leadership (combative) • use of assertiveness and conflict

Each of the four quadrants formed by these two dimensions are the basis of the Quinn Competing Values Framework. For each quadrant there are different organisational outcomes as shown in Figure 1.

Quinn argues that effective managers must be able to operate comfortably in all quadrants, although vastly different (and at times conflicting) skills and mindsets will be required. For example, **Quadrant 1** demands a manager who is flexible and has an external focus. In this environment of expansion, adaptation and change, staff are motivated by a common vision, the excitement of the change and risk taking.

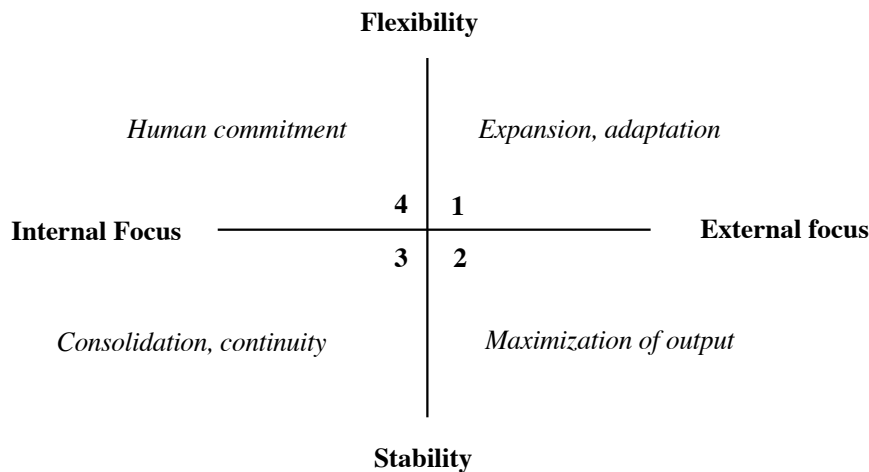


Figure 1: Quinn's Dimensions of Leadership

However there are times when the organisation requires consolidation and continuity, as in **Quadrant 3**, which requires the manager to demonstrate an internal focus and seek stability. Staff in this environment seek certainty and predicability. **Quadrants 2 and 4** are equally paradoxical (flexible/internal and external/stable). The demand for managers to demonstrate this diverse repertoire of skills will change as circumstances change. However, gone are the times when these changes might be measured over weeks or months. Our current environment sees conditions changing so dramatically, and so quickly that managers might need to move from one quadrant to another on an incident by incident basis, hour by hour.

THE NINE ROLES AN EFFECTIVE LEADER MUST DELIVER

Effective managers must be able to deliver each of the eight roles (see Figure 2). They must be able to decipher what role is required at any particular time and then they must deliver this role appropriately. So too must the Supervisor.

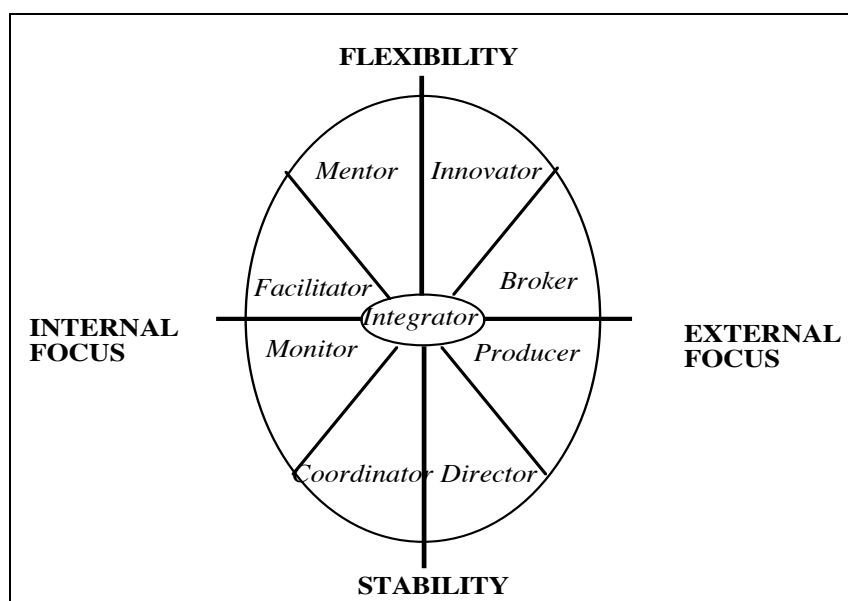


Figure 2. The modified Competing Values Model

Quite often Supervisors, like managers, have a preferred role or set of roles and tend to operate from these even when they are inappropriate. For example, some Supervisors may be tough task masters and not recognise when the student needs a rest and some recognition for the work completed.

Integrator role

The work undertaken by the author has shown that there is an additional role—the Integrator which is the key to the success of a manager as it aligns roles with need—in effect it is the ‘control room’. The extent to which this role is developed will determine how effective each manager is. The Supervisor also needs to be a well developed Integrator.

Each role will be considered in turn.

THE INNOVATOR

The analogy:

Managers, as Innovators, are flexible in their approach and focused on the external environment. In that role they are able to:

- Come up with innovative ideas,
- Experiment with new concepts,
- Solve problems in creative ways,
- Search for innovations & improvements, and
- Envision needed changes.

In the role of Innovator, Supervisors are flexible in their approach to each student. They are able to focus on the academic environment and determine what a suitable thesis topic will be and also what is acceptable. They are able to see what the thesis will look like when it is finished, what changes are needed to produce the final product, creative ways of presenting the thesis and of discussing issues with the student. They will always be looking for better ways of undertaking the research, and seeking new and different approaches to problems that are encountered.

The strengths of this role are that the Supervisor is adaptable to change and is also very creative. A typical comment would be:

“There must be a better way of handling this situation”

If however, a Supervisor should over use this role they may introduce change for change sake. For example, asking the student to make changes to their thesis for the sake of change. If the role is not used when it is required, then the Supervisor may be overly conservative and ignore necessary changes. A typical comment made by such a Supervisor is:

“We have always done it this way, so why should we change”

The Broker

The analogy:

Managers, as Brokers, are like the Innovators in that they are flexible in their approach and focused on the external environment.

In that role they are able to:

- Exert influence upwards,
- Persuasively sell ideas, and
- Acquire needed resources.

In the role of Broker, Supervisors are able to secure the resources that are needed for students to develop and successfully complete their thesis.. They are also very good at developing networks of potential examiners and of knowing who is the best in the research area.

The strengths of this role are the ability to influence the decision makers, strong negotiation skills and the capacity to acquire the resources that are needed. They make statements like:

“For this student to successfully complete their thesis they will need to have access to this equipment. After all PhD completions are important for funding.”

However, if Supervisors were to overuse this role they may be seen to engage in actions that are politically expedient but of low ethical quality. A typical comment made by such Supervisor is:

“Have I got a deal for you”

If Supervisors have not developed this role then they will have limited influence on those who make decisions and will be poorly resourced. Their student may not be able to finish their thesis because of lack of equipment or they may attract examiners who are not known and may have a different methodological approach to the research in question. Hence putting the student at risk.

The Producer

The analogy:

Managers, as Producers, are very good at getting the work done. They take the necessary actions to ensure that the products or services are delivered. They are driven by a sense of accomplishment. In that role they are able to:

- Get staff to complete tasks and to reach objectives,
- Create a climate of productive accomplishment, and
- Establish an achievement orientation.

In the role of Producer, Supervisors get in there do the work and are able to motivate their students to successfully complete their thesis.

The strengths of this role are the ability to have their students finish the thesis on time.

“Let's get started on this research so that we can complete it on time.”

If overused the student may become exhausted and disenchanted from overwork. If under-used there may be low productivity. There may be no thesis at all.

The Director

The analogy:

Managers, as Directors, are very good at:

- Providing direction to staff,
- Clarifying priorities, and
- Communicating the unit's vision in meaningful way.

In the role of Director, Supervisors are able to prioritise the work that needs to be undertaken.

The strengths of this role are the ability to plan, to prioritise, to clarify and to provide structure. A typical comment from such a Supervisor is:

“You must give priority to undertaking your literature review before the data gathering can start so that you know your research questions will be formulated from the literature.”

If this role is used more often than it is required then there will be over regulation and lack of concern for needs of student. And if the role is not displayed frequently enough then Supervisor will be indecisive and experience time delays. They will make comments such as:

“I'm not sure what is more important to do, the literature review or the data collection”

The Coordinator

The analogy

Managers, as Coordinators, are able to:

- Bring a sense of order to the area by helping staff to plan, schedule and organise, and
- Anticipate workflow problems.

The role of Coordinator, Supervisors are able to coordinate the activities so that there are no delays due to lack of planning. That is, the student will contact the organisations from which they wish to collect their data while they are undertaking their literature review.

Their strengths are their ability to provide stability, control and continuity. They make comments like:

“We need to undertake the various tasks in this order so that we will be able to complete the research without undue delays.”

If this role is used more often than it is required the area will be over regimented and too controlled. They will make statements like:

“I have decided that this is the way to do the various tasks and it is the only way.”

And if this role is not displayed frequently enough then the journey through the thesis will be chaotic with inefficient workflow. The student will not know where they can expect delays and how to overcome them.

The Monitor

The analogy:

Managers, as Monitors, are very good at:

- Keeping track of what is going on in a unit,
- Gauging progress,
- Developing checkpoints and measures,
- Holding regular reviews, and
- Collecting information.

In the role of Monitor, Supervisors keep a close eye on the student's progress. They would be checking to see if they are progressing at the rate expected, are they losing interest, getting stuck, hit the wall etc.

Their strengths are that they can keep track of the student's progress. They typically make comments like:

“We are on target with the thesis. It should be finished on time.”

If Supervisors use this role more than they need to there will be inappropriate measurement; measurement for measurement sake. Students might say:

“You cannot breathe around here without her measuring it.”

And if Supervisors fail to use this role when it is needed then they will not be clear on where the various tasks are at nor will they have adequate information

available to make decisions and measure progress Their reply to questions on progress will typically be:

“I am not sure were the student is up to.”

The Facilitator

The analogy:

Managers when they are displaying the Facilitator role are team focused. They are:

- Good at team building,
- Use participatory skills, and
- Facilitate consensus building.

In the role of Facilitator, Supervisors look for which students can work together, which ones will provide support to those that need it and which ones will need protection from some of the more overbearing students. Also they keep the student group working as a team helping each others with critical questions and useful references.

Their strengths are the ability to manage conflict and to build research teams through open discussion and participative decision making. They are heard to say:

“Lets work on this together I would like to hear everyone’s views.”

Their speech often uses the word ‘we’. If however, Supervisors tend to use the Facilitator role excessively, or when it is inappropriate then there will be too many meetings seeking students’ opinion and they will rely excessively on unproductive group decision making. They are heard to say for every decision:

“I am not able to make that decision. We need to have a meeting to discuss this.”

If Supervisors do not use the Facilitator role when it is needed than they will have demotivated students who do not know what is going on because of poor communication from the Supervisor to them.

“I am not sure what is going on, our supervisor never tells what the policy changes are or for that matter the policy.”

The Mentor

The analogy:

Managers when displaying the Mentor role are focused on the needs of individual staff. They are able to:

- Treat each staff member in a caring way,
- Be empathetic,

- Listen carefully,
- Show concern for needs of individuals, and
- Help staff to grow and develop.

In the role of Mentor, Supervisors are focused on each student, They look to see what the individual needs of each student are and then take care of them. Does this student need more time, more support or more space?

Their strengths are the ability to inspire high commitment and loyalty and to be successful at developing the student's research capability. They make statements like:

“How can I help?”

“To assist in your development it would be worthwhile you doing that workshop.”

If Supervisors use the Mentor role to excess then there will be extreme permissiveness with student doing as they choose and there will be a lack of personal discipline. If Supervisors fail to be a Mentor when required then there will be nil student development.

The Integrator

The analogy:

In the Integrator role managers are able to:

- Read signals in the environment accurately,
- Select most important signal(s),
- Decide on appropriate action/response,
- Develop range of responses, particularly those that are weaker, and
- Take account of competing demands and respond appropriately.

In the role of Integrator, Supervisors are able to stand back and look at the Supervisory process and see it for what it is; its pitfalls and its successes. Supervisors can then determine their contribution to this process and translate what they see into their own strengths and limitations as Supervisors. That is, Supervisors are able to assess what they do well and not so well, what interests them more and how to balance this.

When Supervisors are using their Integrator role they are able to lift themselves up from their day to day activities and to see how well they are operating as a Supervisor . They can assess their strengths and weakness and also determine if they are reading the signals in the environment correctly. They can assess if they are responding appropriately to each situation or do they merely use the same response every time irrespective of what is required. For example, if they are

stuck in the Mentor/ Facilitator roles, is this their standard response to every situation. That is, do they only do things that will keep the students happy.

Each of us needs to be aware of the Integrator role. To know when we need to become a helicopter and to take an objective view of how effectively we are operating. When we act as Integrator we are likely to make statements like:

“I need to rise above the day to day issues and look at this objectively.”

We all have our preferred roles but we need to be able to move to other roles that are more appropriate for the particular situation.

WHAT IS THE COMMON PROFILE FOR MANAGERS?

It might be instructive to briefly discuss the outcomes of our research into the Competing Values Framework (Vilkinas & Cartan, 1997). Readers might care to predict their personal preferences or natural bias's for each of the roles and then compare these to our findings. Our data bank of over 3,000 managers allows us to offer the following tentative conclusions:

Managers have a propensity to display the Producer (Mean = 5.37) and Director (Mean = 5.17) roles frequently. [Note: the frequency of the roles was measured on a 7 point scale with 7 anchored by 'a great deal' and 1 by 'not at all'] Perhaps like many gardeners who jump into the work, roll their sleeves up and focus on 'doing'. However, there is no strong link between a propensity for these roles and strong financial performance within organisations, nor are they predictors of business innovation and growth nor of shareholder satisfaction (Hart & Quinn, 1993). It would seem that these dimensions of organisational effectiveness require more than what we might caricature as a production/control mentality.

Managers also show a preference for Mentor (Mean = 5.40) and Facilitator (Mean = 5.13) roles. This means that they are Motivators who are committed to their staff; to the development of their human capital. The likely outcome for these organisations is that they will have strong organisational and reasonable financial and business performance (Hart & Quinn, 1993).

There is less emphasis by managers on their Coordinating (Mean = 5.10) and Monitoring (Mean = 4.89) roles. They are not monitoring their organisation's performance as much as they could. A dangerous deficit as many organisations have gone into financial ruin because their managers were not aware of their current financial status. Nor are they paying enough attention to the internal structures and systems they need to conduct their business effectively. For some reason managers find the Monitor and Coordinator roles difficult or perhaps unattractive. If these roles were delivered more by managers, then their organisations would have strong organisational and reasonable business performance (Hart & Quinn, 1993).

Managers display Innovator (Mean = 5.03) and Broker (Mean = 4.85) roles somewhat less. They are not so strong in their ability to establish new markets and to acquire the resources they need. Organisations are not expanding and adapting to global changes as quickly and effectively as they could. They are leading for the present and not the future. Hence their organisations show only reasonable business and organisational performance (Hart & Quinn, 1993).

It seems clear that the road to generic high organisational performance requires skills in and easy access to all of the roles of this framework. Managers must be able to move with ease between all of these roles.

They must be able to focus on getting the job done (Producer and Director), on motivating the staff and developing teams (Facilitator and Mentor), on seeing the big picture, taking risks and acquiring the necessary resources (Innovator and Broker) and on having an eye for detail, keeping track of progress and coordinating activities (Monitor and Coordinator). They must know when each role is required and have the necessary capabilities to deliver that role.

Managers must be able to deliver all roles with ease and to move between the roles as the situation requires. Hart and Quinn reported that managers who are able to do this are more likely to lead organisations that produce the best performance (Hart & Quinn, 1993). Thus it is important that managers develop each of the roles so that they can use whichever is appropriate at the time. Hence the importance of the Integrator—that part of the manager that is self-examining, that is the reflective practitioner (Argyris & Schon, 1996; Pedler, 1991) and who can develop congruence (Senge, 1990).

So too must the Supervisor be able to reflect on their performance, to develop as a Supervisor and to contribute to the overall performance of the University.

THE SUPERVISOR

So our Supervisor is a person with vision (who can see the wood for the trees so to speak), a person who is creative in the Supervisory process, can acquire the necessary resources, can get the work done, can direct the work of students, can check on and coordinate the various activities that need to be undertaken in the research journey, can nurture, create capabilities and can foster growth of individuals. Perhaps most importantly a good Supervisor knows when to do these things and can move comfortably between these functions and has the skills, knowledge and abilities to perform them ie is an Integrator.

Just like a manager really!

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CROSS-CULTURAL POSTGRADUATE SUPERVISION MEETINGS AS INTERCULTURAL COMMUNICATION

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ABSTRACT

To support the achievement of the broad aims of internationalisation in Australian postgraduate education, as well as facilitate minimum completion rates by international postgraduate students, it is timely to investigate the discourse of face-to-face discussion between these students and their supervisors. This paper begins from the premise that each party may draw important inferences about the other from their spoken interaction, and discusses extracts from meetings between two international research students from language backgrounds other than English and their native English speaking supervisors in the area of agriculture. The politeness strategies employed by both sets of participants are considered in terms of politeness systems in intercultural communication, and seem to place the interactions within the hierarchical system which places supervisors in a superordinate position. Australian supervisors have been reported elsewhere as finding the levels of deference of international students limiting in the development of appropriate student/supervisor relationships, and some features are identified in the discourse of the students in the extracts presented which could contribute to perceptions of high levels of deference. Some strategies are suggested for both supervisors and students in cross-cultural situations to help minimise miscommunication. Finally, as a result of the analysis presented, specific areas are identified in which further discourse analysis research is clearly needed.

INTRODUCTION

The new agenda for postgraduate research in Australia makes frequent reference to internationalisation, and one important component of this is the provision of opportunities to international students to study at Master and PhD levels at Australian universities. One of the foundations of this practice is the expectation that a proportion of the relationships that grow through the process will develop into broader partnerships and collaborative projects (Ballard & Clanchy, 1992). This outcome is more likely to be realised when the relationships have been rewarding for both parties, and this is one reason to pay particular attention to enhancing supervision relationships in intercultural situations. In the shorter term as well, the relationship between the student and her or his supervisor cannot be separated from the student's research program and the quality of the resulting

thesis (Ballard & Clanchy, 1991, p. 79). An increasing emphasis on minimum completion times (Leder, 1995), coupled with heavy academic workloads, means that effort is warranted on developing efficient supervision relationships from the beginning. Even when student and supervisor come from similar language and cultural backgrounds, these relationships can be "fraught with danger of misunderstanding" (Moses, 1984, p. 163), but in cross-cultural situations there is an even greater likelihood of mismatched expectations and communication difficulties (Ballard & Clanchy, 1991; Todd, 1997).

Ballard & Clanchy (1991, pp. 74-78) provide a telling example in data from interviews with an international postgraduate student and his supervisor two years into a PhD program, after their relationship has reached a stage of mutual frustration. A striking feature of the situation presented is that both parties have made important inferences about the other as a result of their spoken interaction over time. The supervisor feels that the student lacks commitment to the research and the ability to develop a new line of investigation, and the student feels that his attempts to talk with his supervisor always feel like a test. Ballard and Clanchy suggest a range of factors which could contribute to such a situation, including the personalities of the participants, the student's scientific abilities, and unrecognised differences in cultural attitudes to teaching and learning. However, even if supervisors and students are aware of these potential sources of difficulty and seek to adjust for them, it is in the language they use in their spoken interaction that this adjustment must be demonstrated and understood. This paper is an investigation of ways in which inferences such as those described above, which can have destructive effects on both supervision relationships and research outcomes, may come to be drawn.

The research reported here has arisen from the experience of developing and teaching over four years at the University of Adelaide a semester-length integrated academic induction program for international postgraduate students, the Integrated Bridging Program (IBP) (Cargill, 1996). A primary focus of the IBP is developing students' skills and confidence in spoken communication with their supervisors. To underpin this part of the program, discourse analysis research is being conducted using transcripts of supervision meetings between students who have participated in the IBP and their supervisors (Cargill, 1997a; Cargill, 1997b). The aim of this project is to investigate how discourse is jointly constructed and understood by the participants in cross-cultural postgraduate supervision meetings, as although a body of literature is available on developing the writing skills of international postgraduate students (for example, Swales, 1990; Belcher, 1994; Todd, 1997), little work has been done on spoken discourse. The specific purpose of this paper is to consider some initial results of the study, from instances of spoken interaction between two international postgraduate students and their supervisors in the area of agricultural science. The particular focus is on 'politeness systems' in the context of intercultural communication and the role of conversational inference (Scollon & Scollon, 1995). It is argued that this process suggests some ways in which the negative inferences underlying the situation

described by Ballard and Clanchy (1991) may have originated, and provides some strategies to improve communication in this particular arena of intercultural contact.

POLITENESS IN ACADEMIC STAFF-STUDENT INTERACTION

Politeness has long been identified as an issue in cross-cultural academic relationships in Australia. For example in the context of advice to newly arrived international postgraduate students, a supervisor is quoted in Ballard and Clanchy (1988) as follows: "The politeness of foreign students is, no doubt, related to their cultural backgrounds. The deference shown to lecturers creates a gap which is hard to cross in terms of scientific communication." This suggests that supervisors do not wish to be deferred to and find an 'excess' of politeness uncomfortable or at least unproductive. The requirement of many Australian supervisors that their newly arrived international postgraduate students call them by their first names is often a first signal of this difference in expectations. However, it has been suggested that the equality manifested between students and academic staff in Australian universities is at a surface level only (Jones, 1995). Ballard and Clanchy (1991) speak of the "hidden but pervasive hierarchy of the research team" (p. 72), and Craswell (1996) refers to "the unequal power relations of which (students) are often acutely aware, particularly in the early stages of their degrees" (p. 2). From the US system, Bardovi-Harlig and Hartford (1993) speak unequivocally of the lower status roles of students, both undergraduate and postgraduate, in their study of advising sessions at Indiana University, and suggest that problems experienced by international students could relate to their variable mastery of the use of "status-preserving strategies" when engaging in speech acts that are "non-congruent" with this lower status. Therefore an investigation of how deference is expressed and understood in cross-cultural postgraduate supervision meetings in Australia could contribute usefully to our understanding of both student and supervisor expectations in this regard.

POLITENESS STRATEGIES

The discussion that follows is based on that of Scollon and Scollon in their 1995 book 'Intercultural Communication'. The expression 'saving face' will be familiar to most; a sociolinguistic definition of face is "the negotiated public image, mutually granted each other by participants in a communicative event" (p. 35). Face is negotiated through the use of contrasting sets of strategies, which demonstrate on the one hand the desire of one speaker to emphasise involvement or solidarity with the other, or on the other the desire to emphasise independence of or deference to the other (Brown & Levinson, 1987). Examples of linguistic realisations of some strategies in both categories for English are given below (Scollon & Scollon 1995, pp. 40-41). They have been selected for their relevance to the data presented later in the paper.

Involvement (or solidarity) politeness strategies

- Claim in-group membership with H(earer)
- Be optimistic
- Indicate S(peaker) knows H's wants and is taking them into account
- Assume or assert reciprocity
- Use given names or nicknames
- Be voluble

Independence (or deference) politeness strategies

- Make minimal assumptions about H's wants
- Give H the option not to act
- Minimise threat
- Apologise
- Use family names and titles
- Be taciturn

POLITENESS SYSTEMS

Speakers generally select from both sets of politeness strategies in any interaction, depending on their judgements about the relative distribution of power, social distance and the weight of imposition, but the predominant selection of one type by speakers in particular roles in one kind of communicative event has led researchers to formulate the concept of politeness systems. Three main types of politeness systems have been observed (Scollon & Scollon, 1995). These are a deference system, where both participants use predominantly independence strategies; a solidarity system, where both participants use predominantly involvement strategies; and an asymmetrical hierarchical system, where the participant in the 'higher' position uses involvement strategies and the one in the 'lower' position uses independence strategies. Scollon and Scollon (1995, p. 45) describe the hierarchical politeness system as one where "participants recognise and respect the social differences that place one in a superordinate position and the other in a subordinate position". I will argue that it is this system that is demonstrated by the student/supervisor interactions I have studied, but that supervisors in Australia may have an equivocal attitude to the area of social differences which may contribute to communicative difficulties with international postgraduate students.

CONVERSATIONAL INFERENCE

One of the ways in which conversational participants interpret what they hear is through inference; this is necessary because language is always inherently and necessarily ambiguous (Scollon & Scollon, 1995, p. 10). These inferences are drawn very quickly, and their two main sources are the language used by the participants and their knowledge of the world.

Features of the language used by speakers which are used by hearers to support their inferences include grammatical and lexical cohesive devices and prosodic patterning, which includes both intonation and timing. Timing, and in particular pause length, appeared to be an important issue in the instances I studied, and is discussed later. Knowledge about the world which is important for conversational inference includes knowledge about what people would normally say in such circumstances (cognitive scripts). This knowledge is often severely limited for postgraduate students embarking on their association with a supervisor, and linguistic choices must therefore be based on experience with other kinds of teachers or authority figures. This is true for novice postgraduates from any background, but the features of the situations regarded as appropriate 'baselines' can be expected to differ significantly with language and cultural heritage.

Inference must be made in two areas: propositional content or sentence meaning; and pragmatic meaning. Pragmatic (or speaker) meaning can be defined as what a speaker intends to convey when she or he uses a particular language structure in a particular context. The difference between these two types of meaning can be illustrated through the question "Can you tell me the time?" An answer "Yes" would suggest that the speaker's meaning had been missed completely, even if the sentence meaning had been comprehended clearly. In the study of postgraduate student/supervisor meetings I carried out, sentence meaning was generally negotiated successfully by the participants (Cargill, 1997a). Speaker meaning, however, sometimes appeared to cause difficulty, as demonstrated in Extract 1.

AN INSTANCE OF PROBLEMATIC INFERENCE

Extract 1 comes at the end of a discussion on the possible effects of the student's having had to replant one type of seeds because of poor germination, resulting in the two types which are being compared not reaching maturity at the same time. As in all extracts presented, any names that may serve to identify participants have been replaced with generic terms.

Extract 1: Male PhD student, female supervisor (MP1, mtg1, 10:45)

(Note: + and ++ = approx. length of pauses <1 second; / = rising tone; \ = falling tone)

1	Su	... ++ so that we MIGHT not need to do + a huge amount of statistical
2		analysis anyway \ ++ the results I would hope would be clear cut + one
3		way or the other + and identify \ ++ um the causes of ++ of ah a lack of
4		infection of (cultivar) / + and the poor health of (cultivar) \ (3 secs) how does
5		that sound to you \ (2 secs)
6	St	well (laugh) since it's a concern I mean I was really thinking as far as ++
7		the time goes [???\] \ you know \ + but it's all right /++ I should just + ah \++
8		let it \++ let this + ah
9	Su	mm
10	St	++ much + go ahead \
11	Su	well
12	St	++I and seel
13	Su	I what I
14	St	the difference \
15	Su	uh huh + what do you see as the alternatives X + to doing this \
16	St	ah alternatives as far as + ah ++

17	Su	the experimental alternatives \ ++
18	St	ah I see
19	Su	caus we we talked about + um + what + YOU think would be a good thing
20		to do + but you obviously have reservations about it \ ++ so \ + what would
21		you see as the possible alternatives to + dealing with this problem / (2
22		secs)
23	St	well I + really hope ++ in a way that ah one of the factors that is going to be
24		hh the isolates ++
25	Su	mm\

In line 5 the supervisor explicitly asks for comment after a 3 sec pause has not been taken up, and the student's response in lines 6 to 8 is characterised by nervous laughter and rephrasing, and a segment too quietly spoken to be understood for transcription. The second part of the response is very spaced, with fillers and pauses frequent. In line 15 it is clear that the supervisor has interpreted this response to indicate that the student is not really satisfied with the outcome of their discussion on this point, and she seeks suggestions from him of other ways the situation could be tackled. In the subsequent interaction which begins at line 23 (remaining data not shown) the student's response to this invitation is not to suggest an alternative but instead to talk about the final result he hopes to obtain for the experiment. In fact, at the end of the exchange, the supervisor repeats her point about reservations and asks again for possible alternatives.

This chain of events suggests a reluctance on the student's part to respond to the supervisor's invitation to talk about possible alternatives. Three possible reasons for this reluctance could be: that he did have reservations but that they did not involve having ideas about alternative solutions; that he did not have reservations; or that he did not know the meaning of the word 'reservations' and did not want to admit it. Another possibility is that the supervisor misinterpreted his intended message in lines 6-14. Hatch (1992) suggests that the use of self-deprecating laughter and disfluencies can help to portray speakers as modest persons, and this may have been the intention of these lines. What can be observed clearly, however, is that the student did not move to query the supervisor's statement about reservations, although he seemed not to hesitate to ask about the supervisor's meaning of 'alternatives' in line 15, where the difficulty related only to the surface-level content of the message.

Any questioning of the supervisor's interpretation by the student would have required him to break into the conversational flow very abruptly, however, because the supervisor presents it as a given—"you obviously have reservations about it" (line 20)—and follows this up with a question. A response which sought to correct the supervisor's interpretation could be seen as interrupting the smooth flow of the talk, because the preferred response to a question is an answer. After seeking clarification, the student attempts to provide the expected response, but with little success in the longer term, as discussed above. These words of the supervisor in lines 19-22 provide an example of one of the linguistic strategies of involvement mentioned earlier: "Indicate speaker knows hearer's wants and is taking them into account". However, the effect here may have been to place an

additional hurdle in the way of the student's being able to clarify the intended meaning of the message. If the supervisor had used an open query about whether the student's response indicated that he had reservations, rather than assuming that she had fully comprehended his intentions in using hesitancy, rephrasings, fillers and falling tones, the student may well have found it easier to comment on the accuracy of the interpretation itself, as well as to seek clarification of the rather particular meaning of the word 'reservations' in this context.

It should also be noted here that this student shows far fewer surface errors in his spoken English than the second student in the study, and thus his foreign-ness is less likely to be at the forefront of a conversational partner's attention. It may therefore be less likely that his contributions to conversation will be interpreted as being influenced by cultural values and norms other than those commonly operating in Australian academic circles. Platt (1989, p. 16) declares this recognition to be an important factor in the reactions of native-speaking interlocutors to the use of communicative strategies based on the rule system of another culture.

PAUSE LENGTH AND INFERENCE

Timing, and in particular pause length, is another feature which is important in conversational inference. Scollon and Scollon (1995, p. 65) report that leaving longer pauses is associated with independence or deference strategies, and shorter pause length with involvement strategies. In the interactions I studied it was where pauses could indicate a signal to introduce a new topic that possibilities of miscommunication arose. In Extract 2, from a meeting between a male MSc student and his male supervisor, there is a pause of six seconds after a minimum feedback token 'OK' by the student in line 5, and pauses of 2 and 1.5 seconds in the supervisor's turn in lines 13-14. All of these are longer than the 1 second pause which is the expected norm in Australian English (O'Grady & Millen, 1994).

Extract 2: Male MSc student, male supervisor (MP2, mtg 2, 20:37)

1	Su	and so once the crossing's finished + and we've got a bit more	time
2		again \	
3	St	yeah + [?]	
4	Su	let's try it again /	
5	St	OK (6 secs)	
6	Su	yeah so ++that should be fine \/+ I think ++ I don't know what	the
7		problem was last time + but + hopefully we can I overcome it/	
8	St	laughter	
9	Su	+++ get things to work \+++	
10	St	yeah ++	

11	Su	[???
12	St	yeah ++ yeah maybe next time however we'll + succeed
13	Su	yeah +++ shou + it SHOULD work + I don't know why not / (2
14		secs) yeah (1.5 secs) YEAH + is there anything else / + + +
15	St	ah + yes ++ ah=
16	Su	=just at the moment
17	St	ah + about the + enrolment /

These pauses combine with lexical cues to suggest that the supervisor has come to the end of a topic and is offering the student the opportunity to initiate a new one. These cues include the 'and so' in line 1 and the 'yeah so' in line 6. Yet it is not until the supervisor asks explicitly in line 14 that the student comes in with a new topic, and it seems possible that it may never have been introduced if the explicit invitation had not been spoken. Scollon and Scollon (1995, p. 81) report that in the Asian discourse system the person in the higher position has the right to introduce the topic of conversation, and that this right overrides others that arise through the structuring of the conversation. In addition, reticence and taciturnity are behaviours associated with deference in many societies (Scollon & Scollon, 1983), and 'Be taciturn' is listed above as a linguistic realisation of a politeness strategy of independence (or deference). However, supervisors with limited cross-cultural awareness may tend to interpret the non-take up of turns at long pauses as indicating that the student has nothing to say, particularly if the behaviour occurred regularly.

Thus a behaviour which may be motivated by the student's desire to appear respectful could be interpreted in a way which could have ongoing detrimental effects on a student/supervisor relationship. This would seem to fit within the definition of miscommunication given by Banks et al. (1991): "something gone awry communicatively that has social consequences for the interactants (p. 105)". They define social consequences as misattribution of motive, unwarranted actions, changes in patterns of interaction, and similar responses to encounters that may debilitate relationships; thus miscommunication for them is not likely to be something that is repaired in the current interaction. In the case of pause length, the effect may not even be noticed at a conscious level and is thus very unlikely to be repaired.

As Scollon and Scollon (1995, p. 66) point out in discussing business and professional dealings between westerners and Asians, if a consistent difference occurs in pause length between speakers in an interaction, for whatever reason, the result will be that the faster speaker, in this case the native English speaking supervisor, will dominate the conversation, even if it is his or her intention to create highly fluent, interactive discussion. Quite unconsciously he or she will find himself or herself repeating things, paraphrasing prior statements, simplifying, and linguistically backing and filling to account for the conversational gaps and arrhythmia. Where the westerner possesses much energy

and great goodwill he or she will press on; where this is not the case, unfortunately, he or she may come to the conclusion that the Asians are less competent linguistically (and intellectually) than they really are.

This description of linguistic behaviour seems to fit the supervisor in Extract 2, and it seems possible that repeated exposure to such a scenario could contribute to the kind of negative opinions about competence and commitment represented by the interview data from Ballard and Clanchy (1991) referred to in the introduction of this paper.

POLITENESS STRATEGIES USED BY STUDENTS AND SUPERVISORS

In the extracts considered so far, the supervisors have demonstrated the involvement strategies of shorter pause length (or volubility) and indication of knowledge of the hearer's wants. The supervisor in Extract 2 also uses the additional involvement strategy of claiming in-group membership with the hearer through his use of 'we' and 'let's'. In contrast the students have demonstrated use of the independence strategy of taciturnity through long pauses and a reluctance to introduce a new topic into the conversation until specifically invited to do so. In Extract 3, additional differences in participant strategies are evident. In line 3, the supervisor makes a suggestion to the student using an extremely indirect form "Well, perhaps if you have a look at it first, if you do the analysis...". Such indirect suggestions have been very common in the interactions studied to date in this project, with ratios of indirect to direct suggestions ranging from 7:3 to 23:5 (Cargill, 1997a). This form suggests a desire not to impose authority, and could be an example of the independence strategy "Give hearer option not to act"; nevertheless it is clear to a native speaker of English that no option is actually implied here, because of the underlying power relationship.

Extract 3: Male PhD student, female supervisor (MP1, mtg2, 11:52)

1	Su	and then + when you've got your harvest data ++ which will be about
2		three weeks time ++ then we can sit down and we can look at + the
3		different treatments + and + um + well p'rhaps if you have a look at it
4		first ++ if you ++ do the analysis ++ and + count up the percentages
5		++ then + we can go over the data and just see +++ what's the best
6		way to proceed from there \
7	St	yeah (3 seconds)
8	Su	is there anything else that's of concern at the moment \ /
9	St	ah ++ so far that's the only thing ++ or ++ yeah \ ++ could be one thing
10		++ I + it's just a plan now \ + + ah ++ I was thinking if + + before + ah
11		+ joining + the group + for this + ah [???] ++ I was thinking I might ++
12		I would rather + do some preliminary + ah + PCR / + runs \ ++
13		
14	Su	mh hm I yes
15	St	because ++
16	Su	right \

The student, after a long pause and an explicit invitation from his supervisor to contribute a new topic, makes a suggestion in this extract, in lines 9-13. But in line with the independence strategies of minimising threat and giving the hearer the option not to act, he downgrades or 'hedges' his suggestion in several ways: 'could be one thing', followed by 'it's just a plan now', and then 'I was thinking' (twice), 'I might' and 'I would rather'. 'Hedges' qualify, soften or make claims more polite (Hatch, 1992, p. 127). 'Downgraders' is a term introduced by House and Kasper (1981, cited in Bardovi-Harlig & Hartford, 1990) and incorporates such categories as anticipatory devices, markers of tentativeness and cajolers. Bardovi-Harlig and Hartford (1990) report that although mitigation and downgrading were features associated with success when graduate students in their Indiana study made suggestions in meetings with their academic advisers, students who are overly submissive "miss the opportunity to establish themselves as having initiative" (Bardovi-Harlig & Hartford, 1990, p. 496) Initiative is a characteristic highly valued in the Australian postgraduate context also, particularly for research students (Ballard & Clanchy, 1988). In the current extract, the use by a student of five downgraders for one suggestion could certainly be interpretable by a supervisor as lack of confidence or over-dependence.

STRATEGIES FOR MINIMISING CROSS-CULTURAL MISCOMMUNICATION

As a result of the first stage of this project, it is possible to alert supervisors to some features of cross-cultural supervision discourse which may lead to problems with interpretation of speaker meaning for the participants. These include their own use of indirect suggestions and unexamined inferences, and the student's use of longer than expected pauses and reluctance to introduce a new topic. On the other hand, students can be alerted to the messages that they may inadvertently give to their supervisors through their discourse patterns, and be advised to be prepared to introduce a new topic at a long pause even without an explicitly worded introduction, and to frame an exploratory question if possible, rather than leave a long pause in the conversation. The data samples presented in this paper could also be used to show new students the possible pitfalls of repetitive hedging or waiting for a formal invitation to introduce a new topic. As Thomas (1983) points out, while it is not the applied linguist/language teacher's job to enforce particular standards of linguistic behaviour, we do want to prevent students being *unintentionally* rude or subservient, and it may behave us "to point out the likely consequences of certain types of linguistic behaviour" (Thomas, 1983, p. 96). Advice to academic staff supervising international postgraduate students, as well as to students receiving supervision, should also include the suggestion from Scollon and Scollon (1995, p. 15) that the most successful intercultural communicators are those who strive to learn as much as possible about the discourse systems to which their conversational partners belong, but at the same time recognise their own limitations in operating outside their own system. A willingness on the part of supervisors, the powerful members of the student/supervisor pair, to introduce into the content of supervision meetings

some discussion of the processes and pitfalls of intercultural communication could thus be a useful contribution to avoiding intercultural miscommunication in this arena.

CONCLUSION

In terms of politeness systems in the context of intercultural communication (Scollon & Scollon, 1995), the interactions considered in this paper seem to fit within the asymmetrical hierarchical politeness system, as the supervisors used predominantly involvement politeness strategies and the students, independence strategies. It is also clear, however, from the range of supervisor comments quoted by Ballard and Clanchy (1988, 1991) that supervisors are likely to be dissatisfied with a cross-cultural supervision relationship that falls within this politeness system. They express expectations of students who demonstrate initiative and independence and a willingness to participate in academic debate, in keeping with their role as people progressing towards a more peer-like relationship with their supervisors. Ways in which these qualities may be demonstrated by postgraduate students in the discourse of face-to-face meetings, while maintaining a personal stance with which they are comfortable, have not been investigated beyond the restricted arena of the US university course-advising interview (Bardovi-Harlig & Hartford, 1990; 1993). Further research is clearly needed in the Australian context with supervisors and their native English speaking students, as well as international ones. An additional factor for the latter subset of postgraduates is that they will generally be working in the target environment of an Australian university department for a very limited time, and must on their return home again work within the discourse systems to which they previously belonged. The longer-term effects of fostering changes in interactional style also need to be borne in mind, or perhaps a higher-level goal could be pursued: enabling participants to move between systems as the context demands in a truly bi-cultural way.

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‘EXPECTATION’ IN A CROSS-CULTURAL POSTGRADUATE EXPERIENCE¹

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ABSTRACT

What are the expectations of postgraduate students when they commence a research degree? What sort of relationship with their supervisor do they expect? How do they make their expectations known to their supervisor? How do they know what their supervisor expect of them? What happens when there is a misunderstanding of expectation, the “I thought you were going to do...” “Oh! I thought you said that...” syndrome? This paper examines the role of expectation in the supervisory experience with particular reference to cross-cultural issues.

INTRODUCTION

The student-supervisor relationship is one of the crucial factors in postgraduate education. Within this relationship, expectation provides a key to understanding why some student-supervisor relationships are successful and others not. In this paper I introduce three types of expectation and discuss each with reference to supervision and cross-cultural issues, especially as these are experienced by Indonesian students in Australia.

First I will discuss various definitions of culture and then identify differences between Australian and Indonesian cultures and some of the implications of these for postgraduate education. Finally, I will look at what the three different types of expectation mean in terms of the expectations of postgraduate students from Indonesia, and the implications of these for their supervisors.

The research cited in this paper arises from a longitudinal study conducted at the University of Adelaide from 1995 to the present. The study involves 33 postgraduate students from Indonesia who have been interviewed every three months during candidature. The interviews have been based on a semi-structured interview technique and interviewees have been encouraged to suggest issues for follow-up in subsequent interviews. The students range across disciplines with thirteen female and 20 male students. Twelve students were enrolled in a PhD, 8 in Masters by Research and 13 in Masters by Coursework.

WHAT IS EXPECTATION?

The Macquarie Concise Dictionary Delbridge & Bernard, (1988) state that **to expect** means “to look forward to; regard as likely to happen; anticipate the occurrence or coming of.” **Expectation** is “the act of expecting...something expected...a thing looked forward to, [or] (*often plural*) a prospect of future good or profit” (p. 329).

The above definitions imply a certain level of positiveness, for example, *a thing looked forward to*, and in English one tends to use the term 'expectation' in a positive sense particularly when one is talking about one's goals and aspirations. Stotland, (1969) argues that with regard to achievement of goals the concept of expectation is akin to hope and he suggests that "Hope can...be regarded as a shorthand term of an expectation about goal attainment" (p. 2).

Three types of expectation

The literature describes three forms of expectation which are relevant to this paper. The management literature discusses **expectation of service**, the socio-psychology literature addresses **expectancy-value** or valence theory, and the psycho-educational literature describes the **self-fulfilling prophecy** as a response to one's perceptions of the expectations of others.

Supervisors' expectations, as well as students' are brought about by a whole range of personal, professional and interpersonal experiences, including relationships with previous students as well as the current student. Figure 1 demonstrates the contribution of the three types of expectation: expectation of service, expectancy-value theory, and self-fulfilling prophecy to an overall sense of expectation (hope) of postgraduate students.

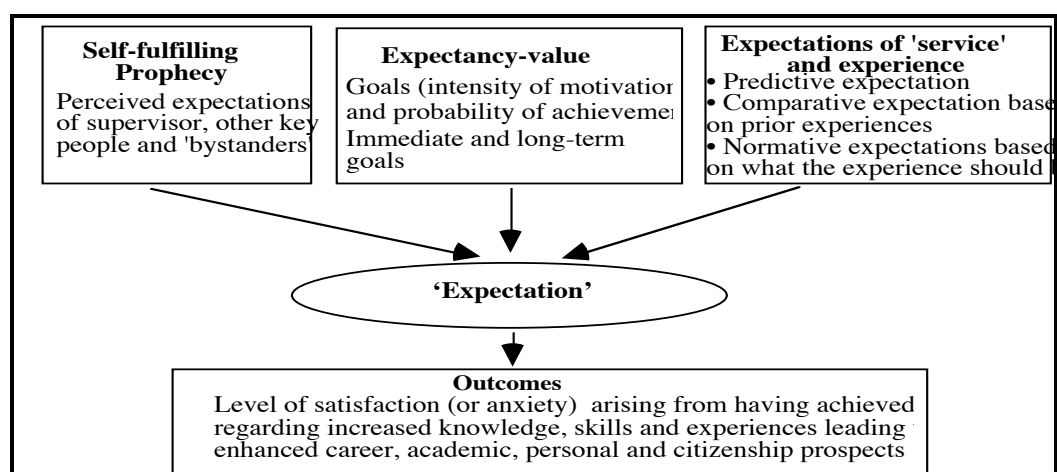


Figure 1 Three types of Expectation

WHAT IS CULTURE?

Lonner & Malpass, (1994) suggests that

Culture...is analogous to knowing the 'rules of the game'. When one becomes socialized (through rule-governed learning and child-rearing practices) and enculturated (through subtle informal learning) in a specific society, he or she has learned a complex set of explicit, as well as implicit, rules concerning how he or she should behave among his or her fellows who share the same culture by virtue of being raised under the same rules. (p. 89)

If one knows the 'rules of the game' in a certain situation, say for example, higher education in Indonesia, and then comes to Australia² to study where there are a different set of rules, what are some of the possible outcomes?

Indonesia as an Example

One influence which Hofstede (1991) argues can be relevant to an understanding of possible cultural differences is the notion of Power Distance. Small power distance societies are, for example, where parents treat children as equals and large power distance societies are where parents teach children obedience (p. 37). Of 50 nations Hofstede ranks the Power Distance Index (PDI) of Australia at 41 and Indonesia at 7 (p. 26).

Hofstede, (1991) further suggests that in addition to PDI one can measure the Individualism Index (IDV) for a country. Using his measure Australia has a score of 90 and ranks second in IDV (after the United States of America). Indonesia has a score of 14 and ranks 47/48 out of 50 (p. 53). (Figure 2 compares the Power Distance and Individualism Index for both countries.) When the PDI is correlated with IDV Australia is described as representing small power distance and individualism and Indonesia as large power distance and collectivism (p. 54). [Note: Such measures should only be seen as indicative and certainly not definitive, perhaps representing only certain groups or geographic locations.]

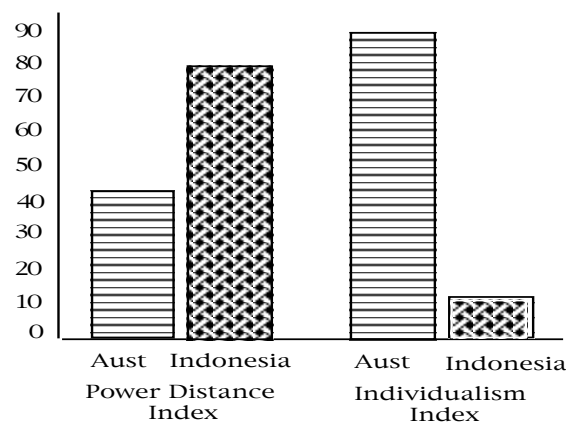


Figure 2. Comparison of Power Distance and Individualism Indices for Australia and Indonesia (Based on Hofstede, 1991)

Individualism and collectivism can manifest in many ways. For example, Hofstede, (1991) suggests that

In the collectivist classroom the virtues of harmony and the maintenance of 'face' reign supreme....In the individualist classroom, of course, students expect to be treated as individuals and impartially, regardless of their background. (p. 62)

In addition, the whole purpose of education can be perceived differently between the individualist and collectivist society. For an individualist society the main aim of education is to prepare individuals to take their place in a society with other individuals. In the collectivist society the emphasis is more on the development of the attitudes and skill necessary to be a member of a group or to benefit one's country (Hofstede, 1991).

Triandis, (1994) approaches the Individualist/Collectivist concept from a different perspective but comes to similar conclusions. He argues that there are four types of social behaviour patterns:

1. community sharing (characterised by intimacy cooperation, self-sacrifice);
2. authority ranking (obedience, admiration);
3. equality matching (taking turns, sharing equally);
4. market pricing (paying for what you want/getting what you pay for (p. 170).

Triandis suggests that with regard to *attribution*, someone from a highly collectivist society, that is the behaviour patterns of community sharing and authority ranking, might attribute success to the help of others and failure to lack of effort, whereas someone from an individualist society, that is, equality matching and market pricing, might attribute success to intelligence and failure to bad luck. The collectivist attribution with regard to study by South-east Asian students is supported by the extensive work of Biggs, (1994); Biggs, (1997); Biggs & Moore, (1993); Biggs, (1990) .

Another concept which appears to be relevant to the Indonesian/Australian relationship is *harmony*. Triandis suggests that someone from a collectivist society would want to act 'correctly'—not necessarily as they feel but in a way that maintains harmony within the group—"What an individual thinks is of no great importance when the group is all important" (p. 172). This might be at some considerable cost, as one Indonesian student from a longitudinal study at the University of Adelaide³ stated:

In Indonesia people demand nice behaviour. But it is really hard...to behave nice while so painful inside, it's so hard. And basically for Javanese (because I grew up in environment of Javanese culture) even if we don't like somebody, say I don't like you very much and I hate it whenever I see you but I should behave as if I like you. I think it is ridiculous and I can't do this. I

am a high temper person who if I don't like I say I don't like this and if I like I say it. That is my background.

It is really a matter of how to give respect. If we don't like someone it is better not to see each other because if we see one another we might express something bad and your culture is about respect for the other people and the culture says how to express a proper behaviour. But as for me with the Javanese how to respect is not express our feelings to that person. So the way we respect someone is quite different with you here how you respect someone in Australia. I just analyse my own feelings. (Rani: 8)

It is clear that this student is likely to find it very hard to be critical or raise issues of personal and professional concern, given her understanding of her need to demonstrate respect.

Expectation of Service and Supervision

Shank, Walker and Hayes, (1996), citing Prakash (1984), suggests that expectations of service can be categorised as being either predictive, normative or comparative. Predictive expectations are an "estimate of the anticipated performed level of service", normative expectations are "how a service *should* be performed in order for a consumer to be satisfied in a service encounter" and comparative expectations are "expectations of a consumer encounter that are based on previous experiences with similar services or brands" (pp. 19-20).

These expectations, Zeithaml, Parasuraman and Berry, (1990) suggest, develop from four main sources

1. *word-of-mouth communications* or what customers hear from others;
2. *personal needs* where expectations can vary depending on individual characteristics and circumstances;
3. *past experience* with using a similar service;
4. *external communications* from service providers, including costs of services (p. 19).

For most postgraduate students sources one, two and four are generally the main sources of information and hence expectation of postgraduate study.

With particular reference to the first source, word-of-mouth, in some cases this comes from other family members who have already completed a tertiary degree. However, for many of the Indonesian postgraduate students on scholarships studying in Australia, it is likely that they are the first in their family to undertake such a level of study. (Ranuwihardjo, 1991) the Director General of Higher Education in Indonesia commented during the *1991 Indonesia Assessment meeting*⁴.

It needs to be emphasised that until 1990 about 80% of incoming students [to Indonesian universities] were the first generation of their families undertaking tertiary education. Parents had no perception of what tertiary education involved, and were therefore hardly in a position to advise their children regarding course selection, modes of study and many other important issues. (p. 54)

These figures are reflected in the 33 students in the longitudinal study where parents' qualifications ranged from both parents having received no schooling to both parents with tertiary qualification. For over half (55%) of the students their parents had completed Junior Secondary education only and there was one student whose both parents had not attended any schooling at all. It follows that some of these students have little in the way of expectation of a postgraduate university experience from their family.

In addition, the school and higher education systems in Indonesia differ in several quite significant ways from those in Australia. In the school system there has been little encouragement for independent thought and expression, with teachers generally working with large classes and with an approach which would be described as very teacher-centred. The university system, while changing, also tends not to encourage a critical approach to learning. Part of this approach is reflected in the supervisor-student relationship where students expect their supervisor to tell them what to do and, even if the student considers this might not necessarily be the best approach (or even, in their opinion, the correct approach), the student is unlikely to question a respected supervisor. This is very different in Australia where supervisors expect their students to be critical of what they read and hear (including from their supervisor) and for students to take a significant degree of responsibility for their own learning.

There are numerous other examples which one could provide of possible areas of mismatching of expectation within and outside the supervisory relationship, although the majority of the students interviewed in the longitudinal study reported that their experiences were generally more positive than what they had expected, particularly with regard to the quality and availability of facilities, for example, library and computers. Generally after six to nine months approximately two thirds of the students had adapted to the significantly more informal, collegial and open style of supervision compared with what they would have expected in Indonesia. In the cases where students and supervisors are having some difficulty in coming to terms with differing styles and expectations the Supervisory Expectation Rating Scale (see Appendix A.) has proved to be quite effective in helping students and supervisors recognise, and then think through, the expectations of one another. The ideal is for each supervisor/student pair to complete the rating scale and then share and discuss their choices. However, considerable value can be gained from students and/or supervisors simply completing the rating scale on their own with the result that they at least recognise that different people hold different expectations of the same experience.

Expectancy-value and Supervision

Expectancy-value theory (or valence) proposes that the level or intensity of one's expectation of achieving one's goals relates directly to the value or anticipated benefit of the achievement.

The concepts of expectation and perceived value that we use are framed at the level of subjective reality and is what is held to be important for understanding a person's behaviour. (Feather, 1982, p. 398)

Stotland, (1969) argues that motivation is positively linked to the "perceived probability of attaining the goal and of the perceived importance of the goal" (p. 7) and that the greater the probability of achievement the greater the positive affect experienced. He suggests that the greater the expectation of attaining the goal the more likely it is that the individual will: act to attain the goal; give more thought to how to attain the goal; and give more selective attention to aspects of the environment relevant to attaining the goals. In addition, he suggest that the more important a goal is, the more likely is the individual to: attend selectively to aspects of the environment relevant to attaining it; engage in more overt action to attain it; and give more thought to how to attain it. (p. 17) Stotland, (1969) further suggests that the lower the perceived probability of goal attainment the greater the anxiety experienced (pp. 9-10).

For many postgraduate students, particularly those from countries such as Indonesia where education is at such a premium, student motivation is generally extremely high. Students are very aware that by gaining a postgraduate qualification they are considered more likely to be able to contribute towards the development of their work place, province and country. They are also very aware that it likely that they will increase their income significantly. This increase arises from greater access to consultancies both within and outside their work place, additional jobs (it is not unusual for a university academic, for example to hold four or five different jobs), and also the possibility of other income from within the university, such as special honoraria, or payment from a university *Lembaga* (Institute) for participating in such activities as research, consulting and training, and even for attending seminars (Clark & Oey-Gardiner, 1991, p. 132).

Dosen (lecturers) who hold another teaching job, in addition to their 'regular' civil service position are likely to be earning 50% more than one at the same level not with additional work.

Those *dosen* who are neither teaching elsewhere nor working as administrators, but who do hold another job (either in government or in the private sector, or both) are earning 121% more than *dosen* of the same rank who have no other work. (Clark & Oey-Gardinder, 1991, p. 136)

There are also negative influences on the student. As with many other Asian cultures, the concept of shame (*malu*) for Indonesians is very strong. To return home without having completed an award would bring shame not only to the student, but to her/his family. For most students in the longitudinal study one of their greatest fears was that they would not complete their award.

Biggs & Moore (1993), with reference to expectancy-value theory, argue that for someone to engage in an activity, they need to expect an outcome which they value. Therefore, they suggest, it is important for postgraduate students to (1) to see value in what they are doing, and (2) have reasonable expectations of what they are doing. Biggs suggests that the **first** of these factors, that is, 'seeing value' is, in his terms, 'motivation'.

The **second** factor, Biggs suggests, depends on self-concept, particularly self-efficacy and attribution. That is, to whom or what do students attribute various successes and/or failure. It appears that students who set themselves unreasonable goals and who attribute their success to hard work (and their failure to lack of ability or effort) are likely to experience extreme anxiety if they are not succeeding with a concomitant plummeting of their self-esteem and confidence. This anxiety can be increased when the student and their supervisor have differing expectations.

Both students and supervisors start a period of postgraduate research study together having numerous and diverse expectations of each other. While these expectations have a superficial similarity at the general level, it is highly unlikely that these expectations will be sufficiently similar for all students and supervisors for them to be able to construct realistically a single supervisor's role. Indeed, it is these differences in expectations for each individual and for each project that are likely to be most important in determining whether or not the supervision is seen as satisfactory for the students and for that matter, whether or not the student's performance is seen as satisfactory by the supervisor. (Powles, 1988) p. 40)

Hence, from these few examples, it is possible to see that Indonesian postgraduate students studying in Australia, are generally very highly motivated to succeed and, based on the expectancy-value theory, are therefore highly likely to put considerable effort into that success. Given this high level of motivation supervisors are often taken aback that students do not seem more active and energetic in pursuing aspects of their work. Of course what they are sometimes not aware of are the difficulties some students experience even with things such as approaching their supervisor. Their prior experience would indicate that their supervisor would take the initiative in calling the student to report to them. On the other hand, many supervisors in Australia adopt the attitude "If you have a problem, come and see me" then, unspoken "And if I don't hear from you, I'll assume everything is OK!" As one student said when she was asked, at the end of

her candidature, what would she like to say to her supervisor if she had the opportunity

I would say a lot to him! A supervisor should be understanding about the culture. Like here, if you don't ask anything then it means that everything is OK, but in Indonesia it means that everything is wrong. (Watie:6)

Self-fulfilling prophecy and Supervision

It is not, however, only the expectation of achieving one's goals which is important, but it the effect of others' expectations on the individual which can also be very significant. As Stotland, (1969) contends

Other people are not merely *relevant* to an individual's expectations about his own actions; their very actions may determine the individual's potential for attaining goals. Thus, the person's level of anxiety can be influenced by the perceived effectiveness of groups and others on whom he is dependent, just as his level of anxiety is influenced by the perception of his own effectiveness. Furthermore, just as an individual can maintain a low level of anxiety by acting on the environment, so also can he do so being in the presence of some other person who has been associated with goal attainment. (p. 106)

Stotland's view of the importance of others in an individual's development of goal attainment strategies and related anxiety or lack of anxiety, is most clearly seen in research related to the self-fulfilling prophecy. The phenomenon was graphically demonstrated by Rosenthal & Jacobsen, (1968) in their book *Pygmalion in the Classroom* where they described "how one person's expectation for another person's behaviour can quite unwittingly become a more accurate prediction simply for its having been made" (p. vii). The authors conducted a study whereby they told teachers that certain students had measured highly on various measures of intelligence, when those students' names had, in fact, been selected at random. The teachers' expectations of the 'brighter' students over a 12 month period were actually reflected in an significant increase in those students' performance. As the authors reported "When one 'knows' a child is bright, his behaviour is evaluated as of higher intellectual quality than is the very same behaviour shown by a child 'known' to be dull" (p. 54).

Of particular interest was the duration of the affect of being considered 'brighter'. For the younger students in the study the affect had disappeared fairly soon after not being considered 'special'. However, for the older students, sixth graders, the affect lasted well into their next year. Rosenthal & Jacobsen (1968) argued that this may have been because the older students actually needed to be convinced in the first place of their 'specialness' and so once that occurred it was more likely that they would maintain that view of themselves. So what might this mean for

adult learners, particularly postgraduate students and their views of what they think their supervisors expect of them? Knox, (1977) suggests that

When adults engage in learning activity on a self-directed basis, their own expectations provide the primary guide to activity, and other people serve mainly as sources of encouragement and learning resources....However, when other people, such as teachers, counsellors, supervisors and other participants, also take part in planning and conducting the educational activity, their expectations influence the learning activity. (p. 427)

Although the actual *Pygmalion Effect* is related to intellectual performance the self-fulfilling prophecy can relate to all types of behaviours not just intellectual ability. Expectations can be ‘picked up’ from ‘key people’, in the case of this study usually research supervisors, and from ‘bystanders’, that is, other students, academic support staff, administrative staff or even family who reinforce these perceptions.

It is not difficult to imagine the effect on a newly arrived student when her/his supervisor says something like “I’m very enthusiastic about the contribution I think you will be able to make to this project, given your interests and previous experience”, compared with “The last few Indonesian students I’ve supervised have had real difficulties with English, and particularly with writing, so you’ll need to do additional classes to be able to keep up.”

While some students in the longitudinal study have reported a level of disbelief when their supervisor tells them that they are doing very well, nevertheless, students report that they respond well to positive and encouraging statements from their supervisor and they respond very dramatically to negative comments. One student, who tried to explain her difficulties to her supervisor found that he thought she was complaining.

[My Supervisor] didn't like that I was complaining, he told me I was complaining too much because he said that because I came here I had passed the IELTS and so I should be able to do the course.

The student reported quite significant problems while she was working with this supervisor, but this changed when she got a new supervisor.

He is good. He has a friendly personality. He treats me like a colleague, not a student. He will say “OK Watie, what’s your problem, tell me, what’s your feelings, tell me.” And then he tells me that I worry too much—it shouldn’t be like that. (Watie:3)

Writers have described the supervisor/student relationship in a number of ways, but Hockey, (1996) suggests that supervisors and students are in a very special relationship akin to tutorship about which Rapport et al (1989) write:

...the significance of the relationship stems from its duality; the co-existence of intimacy, care and personal commitment on the one hand, and commitment to specific academic goals on the other. (Rapport et al, 1989 reported in Hockey p. 363)

From this description Hockey suggests the following types of postgraduate supervision:

1. 'informal'—where the notion of a contractual agreement and trust are of equal importance;
2. 'comradeship'—where trust is more important than the contract; and
3. 'professional'—where the contract becomes more important than trust.

He reports that the majority of supervisory relations in the UK are more in line with the 'comradeship' model or verging on 'informal' and there are very few which could be categorised as 'professional', that is, as being based on a contract system.

Certainly many supervisors and students, at least at the University of Adelaide, enter the supervisory relationship with a sense of trust that each party will do *what is expected* (although rarely is 'what is expected' is defined or discussed in detail) and that the whole experience will be a positive one. Expectations can include the roles and responsibilities of both parties; expectations about the student's motives for undertaking postgraduate research and supervisors' reasons for undertaking supervision.

While the trust is maintained on both sides—in some cases as a result of good luck rather than good design—the relationship flourishes. Student and supervisor work together in an implicitly agreed environment. However, when one or both members of the relationship break that trust—possibly unwittingly, assuming that the expectations were never made explicit—then the relationship can quickly become fraught with difficulty. Generally, there are three options: a) struggle along as is; b) draw up a contract with very clear roles and expectations; or c) end the relationship by changing supervisors. Examples of all three options are observable at the University of Adelaide.

CONCLUSION

As long as postgraduate supervisory relationships are built on implicit trust there is always the strong potential for the relationship to deteriorate if the trust is broken on either side and/or if the (implicit) expectations of one partner are not reciprocated by the other. All students and supervisors have expectations related to a range of matters: the purpose of the award, the type of relationship which is desired, the level of independence/reliance of the student, the reasons for why the supervisor agreed to supervise the student, and so on.

In the case of overseas students studying in a foreign country and often in another language, these expectations can be even more varied and problematic.

An understanding that such expectations and implicit trust exist within the supervisory experience and that they may be quite at odds with one another, is at least a start in establishing a truly open and collegial relationship, and working towards an experience which is likely to be one of the most significant of a person's time as a student. Using techniques such as the Supervisory Expectation Scale, or being involved in student-supervisor workshops where the implicit can be made explicit and then discussed provide means whereby students and their supervisors are more able to understand one another and work together more effectively.

NOTES

1. An earlier version of this paper was presented at the national "Postgraduate Experience" conference in Cape Town, South Africa December 4-5 1997.
2. Note that not all supervisors in Australia are Anglo-Australian. In a longitudinal study involving 33 students and their supervisors 15% of the supervisors were not Anglo-Australian but most had studied and/or worked in a Western higher education environment for some years.
3. Kiley, Work in progress at the University of Adelaide. Some student comments, using pseudonyms, are included in this paper. The figure after the name refers to the interview e.g. (Rani:8) is the pseudonym for the student's comment in the eighth interview.
4. Each year an "Indonesia Assessment" forum is hosted by the Australian National University where annual updates on Indonesian economic, political and social issues are reported by Indonesian and Australian experts. In addition, a particular theme is identified and in 1991, this theme was higher education.

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Expectations in Supervision

Read each pair of statements below and then estimate your position on each. For example with statement 1 if you believe very strongly that it is the supervisor's responsibility to select a good topic you would put a ring round '1'. If you think that both the supervisor and student should equally be involved you put a ring round '3' and if you think it is definitely the student's responsibility to select a topic, put a ring round '5'.

1.	It is the supervisor's responsibility to select a research topic	1 2 3 4 5	The student is responsible for selecting her/his own topic
2.	It is the supervisor who decides which theoretical framework or methodology is most appropriate	1 2 3 4 5	Students should decide which theoretical framework or methodology they wish to use
3.	The supervisor should develop an appropriate program and timetable of research and study for the student	1 2 3 4 5	The supervisor should leave the development of the program of study to the student
4.	The supervisor is responsible for ensuring that the student is introduced to the appropriate services and facilities of the department and University	1 2 3 4 5	It is the student's responsibility to ensure that she/he has located and accessed all relevant services and facilities for research
5.	Supervisors should only accept students when they have specific knowledge of the student's chosen topic	1 2 3 4 5	Supervisors should feel free to accept students, even if they do not have specific knowledge of the student's topic
6.	A warm, supportive relationship between supervisor and student is important for successful candidature	1 2 3 4 5	A personal, supportive relationship is inadvisable because it may obstruct objectivity for both student and supervisor during candidature
7.	The supervisor should insist on regular meetings with the student	1 2 3 4 5	The student should decide when she/he wants to meet with the supervisor
8.	The supervisor should check regularly that the student is working consistently and on task	1 2 3 4 5	The student should work independently and not have to account for how and where time is spent
9.	The supervisor is responsible for providing emotional support & encouragement to the student	1 2 3 4 5	Personal counselling and support are not the responsibility of the supervisor - students should look elsewhere
10.	The supervisor should insist on seeing all drafts of work to ensure that the student is on the right track	1 2 3 4 5	Students should submit drafts of work only when they want constructive criticism from the supervisor
11.	The supervisor should assist in the writing of the thesis if necessary	1 2 3 4 5	The writing of the thesis should only ever be the student's own work
12.	The supervisor is responsible for decisions regarding the standard of the thesis	1 2 3 4 5	The student is responsible for decisions concerning the standard of the thesis

Adapted by M Kiley & K Cadman, Advisory Centre for University Education, The University of Adelaide from work by I Moses, Centre for Learning & Teaching, University of Technology, Sydney 2.1.97

POSTGRADUATE SUPERVISION: THE IMPLICIT, THE EXPLICIT AND THE POLITICAL IN FIELDWORK FOR SOCIAL RESEARCH

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ABSTRACT

While industry-based research, cuts to funding and moves towards a user-pays system are increasing, so are postgraduate research supervisors finding the need to change and extend their methods of supervision. Within social research, this can mean helping students to take an inquiring and more informed approach to the political aspects of research fieldwork. This paper is a collaborative reflection by a research supervisor and the facilitator of the action research group in which the supervisor researched and developed these dimensions of her supervisory practice. It is co-authored from the perspective of complementary and distinct positions and voices within research conducted at Curtin University of Technology in 1996.

The main text (the supervisor's voice) explores the complexities of supervising a student in the Division of Humanities in a research requested from an outside organisation. It documents the richness, the controversies, the conflicting goals and the pitfalls in the process of this type of research. The supervisor writes of how the people involved, including herself, may have contributed to a process of implicit rather than explicit interaction. She also demonstrates how the political dimensions can be disregarded, and how, involuntarily, she colluded to ignore them. Her on-going reflection shows the value of *explicit* interaction for reframing communication and patterns of action. The facilitator's voice provides further insights to enrich understanding about the supervisor's process of discovery. It portrays something of how collaborative reflection can work to enhance practice within a professional development program for supervisors.

INTRODUCTION

In recent years growing bodies of literature have emerged on the matter of the politics of social research (for example Lather, 1991; Hammersley, 1995; Stringer, 1996; Winter, 1996, and others). The term "political" as used in this paper draws on this literature to mean social actions (including decision-making) and interactions driven by hidden agendas. Such agendas incorporate various

influences including vested interest, power bases, ideological positions, financial management concerns, cultural and gender positions, and interpersonal relationships. Despite the existence of this burgeoning literature, the evolving knowledge about political aspects of social research appears to be under-utilised, both in postgraduate research supervision and in the assessment of theses.

However, with the increasing push for universities to supervise industry-based research, the need to recognise and work with the political aspects of the research process has become more obvious. This paper is written from a point of observation, that the increasing obviousness of politics in social research is effecting a change in the way in which postgraduate research supervision is envisaged and conducted. Moreover, the paper offers a small contribution to that process of change in the form of some in-depth reflections on one supervisor's changing practice.

The paper presents the dual perspectives of the facilitator/designer of the EPSTAR project, *Susan*, and those of the supervisor/action researcher, *Paola*, who undertook action research on her supervision. And it proceeds in the manner of *interrupted text* (Brodkey, 1987, p. 67). First, in "coming to reflect on supervision—the EPSTAR project", Susan speaks about how the collaborative reflection program for supervisors was initiated and took place. Then Paola speaks about becoming involved in action research on her research supervision, and specifically about her 'impetus for the research', "the experience in retrospect" and "the research background and focus". Next, in "moving from overload to problem solving" Susan recounts some of her observations of how Paola came to identify the topic of political aspects of supervising social research and of how this was experienced by the EPSTAR group and by herself as the professional development facilitator. From here Paola continues with "tasks in hand" telling us about her practical planning and actions. She goes on, in "reflecting: hypothetical considerations and action", to describe her insights into the complexities of interaction between a number of parties involved in industry-sponsored research. In addressing the issue of conflicts of interest she: proffers a list of questions which 'should have been asked'; identifies how political underpinnings remained implicit; and, explains how her own research field notes helped her to both 'unravel' the course of events and to value the roles of explicit communication as well as listening to intuition. Paola—reflects that to view politics and research as mutually exclusive is detrimental—social research cannot present a finite view and should be presented as a temporary perspective coming from a particular angle which is always open to challenge. Finally, both authors reflect on their findings to offer them as vicarious learning for others.

As is consistent with the genre for reporting on action research (Hall, 1996b), from here-on this paper is written in the first person. The information presented is taken from our respective data banks including records of and feedback given in the individual and group meetings, field notes from Paola's involvement with the agency, copies of correspondence, oral and written feedback from the research

candidate and entries from our respective journals in which we monitored the process.

A STORY OF REFLECTIVE SUPERVISION PRACTICE: TWO VOICES ON THE PROCESS OF IDENTIFYING POLITICAL PRACTICE AS AN EXPLICIT SOCIAL RESEARCH SKILL

Susan: Coming to Reflect On-and-In Supervision—the EPSTAR Project.

The term “reflection” is used here to mean reflection on and in practice in order to improve the practice, following Schon (1983). Whereas reflective practice takes many forms (Hall, 1997), the particular form of reflective practice used here is action research following Carr and Kemmis (1983). Action research is a deliberate, collaborative and cyclical path of reflection-in-action in which the researcher monitors aspects of his/her practice, analyses them to formulate new plans and carries them out with further monitoring to continue the process.

Paola was one of a group of research supervisors at Curtin who, in 1996, successfully applied to participate in a centrally run professional development project on research supervision. The objectives of this project, the Enhancing Postgraduate Supervision Through Action Research (EPSTAR) Project were to:

- (i) facilitate the continuing development of the supervisors’/action researchers’ supervision practices;
- (ii) facilitate successful and fulfilling postgraduate research processes and outcomes for the students of the participating supervisors/action researchers;
- (iii) generate further interest and expertise in postgraduate supervision within the Branches/Departments/Schools/Divisions of the participating supervisors /action researchers; and,
- (iv) publish and disseminate the outcomes and processes of the project in a variety forms with a view to expanding the project, subject to procuring further funding, in 1997.

I designed and facilitated The EPSTAR project at Curtin University of Technology from March to December 1996, with an academic staff development grant which I had won from the Quality Office within the University. This was undertaken as a part of my work in what was then named the Teaching Learning Group. As indicated in the objectives above, in addition to enhancing the supervisory practice of the participants the project was undertaken to contribute to a wider cultural change relating to the research supervision process at the University (Hall & Exon, 1996; Hall, 1996a). The envisaged contribution to cultural change was one in which the process of supervision would move gradually from an individual experience carried out in isolation to a more collaborative/reflective one in which:

- supervisor and student/s would reflect and act together on the supervision process during the course of their working relationship;

- supervisors would collaborate with each other and with other supervisors in their Schools as part of the continual process of enhancing their supervision; and,
- students would reflect and support each other in a collaborative group.

Therefore, two support groups operated within the project; a supervisor's action research group and a postgraduate candidates' (students') group.

The action research projects began when the participating supervisors/action researchers were successful in submitting expressions of interest in response to a University-wide advertisement. Because the funding stipulations determined that the resources be used for academic staff development, some assistance was also provided to the candidates' group but the main focus was on the supervisors' group.

The Supervisors' Group

The supervisors' group, was made up of four supervisors from different disciplines, all of whom were undertaking action research for the first time. Following a preliminary and an introductory workshop, they worked within an action research-based program which comprised:

- (i) individual developmental work wherein each supervisor, in conjunction with their research candidates, reviewed and developed their supervisory practice through a cyclical process which involved planning, acting, observing, reflecting as described in Kemmis & McTaggart (1985);
- (ii) monthly individual consultation sessions with the facilitator in order to monitor and plan the evolving action research methods;
- (iii) monthly, facilitated group reflection and support sessions; and,
- (iv) collaboration with other supervisors/colleagues in the work-place.

My role as facilitator was negotiated at the introductory workshop and later documented in a working agreement. I undertook to provide guidance on action research method and to facilitate collaborative learning within and extending from the group. However, I undertook not to advise on supervision practice.

Each of the projects assumed a particular focus as identified by the supervisor and these are reported on elsewhere (Hall, S; Coates, R; Ferroni, P; Pearson, M; & Trinidad, S, 1997).

Paola: Sizing Up the Journey

Impetus for the Research

The motivation to participate in this project was initially to:

- seek new opportunities to work collaboratively with colleagues;
- extend my knowledge and familiarity with qualitative research process and paradigms; and,
- acquire new knowledge on research supervision through reflective praxis.

Later, I also set out to learn more about the politics of social research after identifying this as a focus of my project.

The Experience in Retrospect

My experience as a postgraduate research supervisor in this project, with an action oriented research approach is that my realisations, planning, reflecting, acting and observing seem to have occurred simultaneously in cyclical patterns moving back and forth often giving me a sense of regression rather than moving forward. However, in writing this paper I have a sense of having attained an interesting map of this journey thanks primarily, to the ongoing reflection on process and a discussion in a meeting with my ‘critical friends’ within the supervisors’ action research group and the students’ group.

The Research Background and Focus

For the purpose of this paper, it is essential to identify the broad parameters and the main objective of the research in question. I was approached by the staff of an organisation asking for a postgraduate candidate interested in doing a research to evaluate a new model of service in comparison the previous one. In consultation with my student it was agreed that I would investigate the issue further to explore the request in greater details before committing the School or the student to the proposed project. This process of considering what would be involved in the arrangement with the outside agency brought me to a point of ‘work overload’.

Susan: Moving From ‘Overload’ Towards Solving the Problem

Exploration

Along with her fellow supervisor/action researchers Paola began researching her supervisory practice by monitoring and reflecting on it over a period of several weeks. I recall one of the early group reflection sessions in which she first mentioned the scenario which led to her identifying the political process as her main research focus. She reported that with the build up of the pressures of the academic year she was feeling overwhelmed with her workload to the point that she had doubts about her ability to carry on with the action research project. She went on to mention one of the tasks which has come ‘on top of’ her supervisory role to contribute to her pressured condition.

My experience in facilitating programs for reflective practice over the years has taught me that when people are feeling overwhelmed by their workloads, they find the process of ‘talking it out’ to be clarifying and helpful to acting on the

problem. Furthermore, I have found that there is often one particular task or problem that is ‘holding up the works’ and that clearing this can be pivotal in moving towards working more effectively. Therefore, I encouraged Paola to tell us about the additional task which she now had to deal with. She told us of how she had been approached by an outside agency who was seeking a student to undertake some research for them. She was attracted to the idea of students undertaking community/industry based research but she was concerned about the extra tasks and potentially precarious position it could place her in as the supervisor.

We were all very empathetic to Paola’s scenario. I also recall pointing out that given Curtin’s particular emphasis on applied research this was an area of supervision which would likely assume increasing importance.

Focusing on the Problem

After reflecting on our reactions, in the next consultation with me, Paola announced that she had decided to make this topic a focus of her project. She had moved from considering what had been two competing commitments for her time (that is, the action research project and the task of dealing with a difficult aspect of her supervision) as one commitment. That is, she set out to use the process of conducting research on practice, along with the assistance of collegial support, as a way of solving her supervision problem.

A Dilemma for the Facilitator

From my position, while I saw this shift as a positive one, I also saw it as a risk and this presented me with a dilemma. On the one hand, I was mindful that I had negotiated the basis of a working agreement which set the limits of my brief as action research facilitator firmly within the bounds of advising on action research methods and facilitating group collaboration. I had deliberately excluded myself from advising on supervision methods. On the other hand, my practical experience and knowledge of politics within fieldwork warned me that the request which was put to Paola could easily result in failure with negative consequences for all and our mutual concern was for the student. Furthermore, the fact that Paola had declared that she was relatively new to qualitative research made me contemplate breaking my ‘working agreement’ by advising her to refuse the approach from the agency. Somehow, following intuition or otherwise, I decided to shelve my concerns and leave things to run their course. I reminded myself that this was Paola’s project and that we were in a collaborative learning group which respected autonomy.

Paola: Planning and Acting

Tasks in Hand

My review of my notes on the early part of the process, beginning with the meetings between myself and the student prior to attending meetings with the sponsoring organisation, indicates that at that time I had articulated the following considerations:

- (i) the need to negotiate research requirements including respecting academic requirements and the student's learning process;
- (ii) guiding the student through the various loops of the research process;
- (iii) negotiating my involvement in the field meetings with members of the sponsoring organisation to ensure the adherence to (i) and (ii); and,
- (iv) organising my time schedule to include regular meetings.

I believe it was agreed that the student would only undertake the research on the above stated conditions, and that I would be participating in the first initial meetings to ensure members of the sponsoring organisation were clear about fundamental university and educational requirements. It was also agreed that the university would fund the research process to avoid potential contamination associated with outside funding. On reflection, our communication was more *implicit* than *explicit*—including [the] subsequent interpretation[s] of what I thought was agreed upon. It is also interesting to note that a post-hoc evaluation of our ongoing verbal and non-verbal interaction of these early meetings indicated there was an implicit agreement we would avoid controversy, as if challenging each other's position/views might have seriously impaired the progress of the research.

Reflecting: Hypothetical Considerations and Action

My cycles of reflection and participatory activities have provided me with a greater insight about the complexities of research sponsored by an outside organisation including the potential for conflicts, differing views, expectations and needs between the following participants:

- (i) research candidate;
- (ii) research participants (subjects);
- (iii) research supervisor representing the university and the candidate;
- (iv) clients of the agency; and
- (v) stakeholders within the sponsoring organisation.

I began to hypothesise the inevitability of conflicts of interests. In this case, there is a strong potential for the stakeholders within the sponsoring organisation to have different and conflicting expectations with regard to the outcome of the research. This is because they are from a multi-disciplinary background, whose

views and daily activities are influenced by very different responsibilities and professional paradigms. For example, the world view and practice of a social worker may be very different from that of an accountant, a psychiatrist, a police officer or a judge. In retrospect, the questions that I needed to address explicitly at the outset were:

- (i) Beside the people attending the meeting, were there others in the sponsoring organisation who had the power to change or reverse the decision made by us as a group?
- (ii) Who initiated the request for this research?
- (iii) What was the reason for requesting the research in the first place?
- (iv) What were the assumptions as to who or what would drive the research process?
- (v) Was there a predicted, expected outcome?
- (vi) Who was the research likely to reward?
- (vii) Who and what would influence the outcome?

On reflection, it is clear that nearly all of the above questions had a political underpinning that remained tacit and unchallenged. This is partly supported by the fact that during the first meetings with the stakeholders from the sponsoring organisation none of the hypothesised conflict of expectations between parties emerged in any explicit way. The meetings were quite harmonious as we seemed to be working toward identifying, in broad terms, the:

- (i) frame of reference of the research project;
- (ii) parameters of what was going to be investigated;
- (iii) methods for gathering and analysing or drawing meaning from the data; and,
- (iv) support for the student in getting access to the data and the approval for the ethics clearance within the sponsoring organisation.

With hindsight I suspect that the pervasive state of harmony was influenced by the fact that we were focusing on macro aspects and were aware that we needed each other. The representatives of the organisation were cognisant of the fact that they:

- wanted to evaluate an area of their work;
- required academic support for structuring and facilitating the ethical process;
- did not have the funding to undertake the research in question; and,
- did not have sufficient skills or the technological support to carry out the research.

We (the student and supervisor) could provide the physical resources, the research knowledge, and were pleased to undertake a research that we envisaged was going to have immediate applicability and usefulness in the community. A retrospective analysis and my intuition however, suggest that since the first meetings, there were times of subtle discomfort although this was never articulated. Recent events

indicate this assumption to be quite correct. For example, quite unexpectedly, the student was asked to make new changes to the research protocol and I also learnt there were additional members of the organisation that had the ultimate authority on decision making. I understand now that some players were indeed more visible than others, while others were totally invisible to me. This research activity is ongoing and I am still negotiating on a number of issues. Taking into consideration all that I had hypothesised whether intuitively or otherwise, from now on all communication will be qualified and ongoing. My participation will be re-negotiated to ensure requirements (i) and (ii) referred to earlier, are properly attended to. The fact that I had articulated these points earlier in the process and recorded them in my action research field notes has assisted me in unravelling what went on. On reflection, it highlights the essential role of *explicit* communication and the value of listening to my intuition when things are not as they seem.

On Reflection—The Politics of Research

The following discourse on the politics of research is a critique of a common empirical assumption that posits that sound research is apolitical. In this critique however, I do not question the *architects'* (the agency's) belief that their new model of services would actually improve the quality as well as the climate in which these services were delivered, while saving costs. The discourse merely seeks to highlight the potential detriment to all research, if we subscribe to the assumption that politics and research are or should be mutually exclusive. We need to remain cognisant of the fact that research, but especially social based research because of its dynamic nature, will never provide a perfect, finite view but a temporary perspective from a particular angle that can and should always be challenged.

The joint experience of myself as a supervisor, and the student as researcher, established two additional issues necessitating careful monitoring:

- (i) The agency stakeholders' requests (including issues of ownership). For example, the student was occasionally asked to undertake activities that might have undermined her central role as the researcher. On one occasion she had been asked to provide preliminary results for a stakeholder to present at a conference. The academic position would dictate that the students should have been invited to present these on her own or jointly with the stakeholder. However, in the absence of any explicit agreement, it is highly probable that the stakeholder overlooked the issue of ownership.
- (ii) It should have been obvious at the outset that there might have been a politically motivated push to demonstrate the benefits of the new program in comparison to the old. As indicated earlier, this was a comparative study investigating the quality and benefits of two models of services. The new model being developed from the old one with changes that provided greater

support for all professional staff, partly by reducing the contact times with clients and some costs associated with the delivery of services.

In this setting the political dimension is inevitable and undeniable and yet, it is interesting to reflect how this political reality was explicitly denied. This was demonstrated repeatedly over time. For example, during the meetings with the researcher and the agency's stakeholders, it was never mentioned that there might have been an expectation that a positive research outcome was necessary for the continued funding of the services in the current model.

As shown, an instrumental, mechanistic approach to research, carries the danger of placing the model of services (being investigated) in a sphere of professional mystique. A sphere in which some professionals assume the right, or develop a belief that they may legitimately appeal to their own professional authority and wisdom, dismissing external criticism as unenlightened and misinformed.

SUMMARY

Paola:

At the early stage, although involuntarily, I contributed to an instrumental, mechanistic approach which denied the philosophical and political dimension, thereby excluding challenges to the established position. I speculate that, in this process the *architects* of the new model of services, might have been encouraged to assume that in their professional wisdom, their better judgement could predict and legitimise the research outcome. This experience has sharpened my awareness and left me with an indelible reminder that research can never be apolitical, especially when it deals with people in dynamic critical settings where the socio-political-economy influences the topic and the parameters of the research.

Susan:

Paola has expressed that this project has been a positive experience, elucidating pertinent issues in undertaking and supervising research in industry or outside agencies. She has also enhanced her postgraduate supervision practice by developing skills to supervise social research in industry/agency settings. Her student also expressed her gratitude for the experience of having been guided through this difficult aspect of doing fieldwork in social settings. On these grounds, and in term's of the objective of the EPSTAR project, Paola's project can be considered a resounding success.

In reference to the overall project, it is of note that we did not, as originally intended, apply for funding to further develop the project in 1997. Certainly, we were all very tired as these deeply reflective forms of professional development, conjunction with a very full workload, are always demanding. But our pause has been more a period of a consolidation than one of respite. This has been an

intense experience which we have continued to reflect and analyse and write about as our 'theory' and practice evolves.

Finally, as noted at the beginning of this paper, the issues and aspects of social research which Paola has redressed are by no means new within the literature on social research method. What can be learned from Paola's experience is that knowledge about conducting and supervising the political aspects of research fieldwork cannot be learned solely through theoretical understanding. The growing literature on this topic is a necessary resource for the actual learning which takes place within and after experience. And my experience has led me to believe that this kind of knowledge changes and grows as unique social/political situations are encountered.

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THE PHD AS AN APPRENTICESHIP IN WRITING

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ABSTRACT

This paper argues that the development of writing skills should be seen as an integral part of the PhD process for all students. Attention should not only be focussed on those with particular language difficulties. Writing is not just a means for 'writing up' research; it plays a part in formulating, organising and refining thoughts and arguments. The PhD presents an ideal opportunity to improve all aspects of writing, from dialectics to sentence level grammar, and this potential should be fully exploited, not only so that candidates can produce an acceptable thesis but to develop written communication skills which are relevant and transferable to life after the PhD. I argue that supervisors have a central role to play in assisting candidates develop their written skills, and discuss a number of strategies which can assist them to help students become effective communicators in writing. I spend some time discussing editing and editors, an area of concern due to the apparently growing need of some PhD candidates for editorial assistance. I suggest that rather than being a problem, editing can be used to assist students to improve their writing. To do this however, and to address issues of ethics and equity, all those involved in PhD education and training need to examine and openly discuss current editing practices.

INTRODUCTION

As observed by Brown (1994, p. 90) it is paradoxical that "writing is such an obvious and integral part of postgraduate study that we sometimes take it for granted and so fail to manage it deliberately". (p. 90). This paper will focus on the development of writing skills as part of the PhD process. It will argue that this should be seen as an integral part of graduate education and suggest how this can be achieved. This issue will be considered in the context of the two main perspectives of this conference: the theoretical, since the paper discusses writing as an aspect of the value, relevance and transferability of PhD study; and management and economic imperatives, since it raises questions about the role and responsibilities of the supervisor and others involved in graduate education in the light of the needs and expectations of the increasingly diverse body of PhD students in Australia.

The paper is organised as follows. First I make the case for why we should focus on the issue of writing at this conference. I then consider some particular problems identified with international students to show that they cannot all be related to language and that, when one considers what writing in the PhD process

entails for all candidates, these problems are often more a matter of degree than kind. Addressing the needs of international students can, therefore, improve PhD education in general. The next section discusses some practical suggestions for how to develop written skills during the PhD. I then consider the complex area of editing, emphasising the wide range of activities this can encompass, the number of parties that can be involved, and its role in the writing process. The problems and potential posed by the use of editors are also discussed. Finally, I summarise the main points of the paper in terms of recommendations for action.

WHY FOCUS ON WRITING AT THIS CONFERENCE?

Writing assists in formulating, organising and refining ideas and arguments. It exposes them to public view (the writer's and others) and allows them to be examined, questioned and revised. The written word captures ideas in time and exposes them to scrutiny, revealing gaps and inconsistencies and making it possible to clarify one's questions and arguments by saying things explicitly and in full. Writing is a process, not only a product. Its development should be seen as part of the research process since it helps the writer crystallise and organise his/her ideas. Writing is thus not just a means for 'writing up' the research. It is part of the process of the research and its analysis (see particularly Brown 1994, Gottlieb 1994).

In addition of course writing is a powerful means of communication. Clear, reasoned written explanations and arguments allow the writer's ideas to be transmitted to others. Mastery of the use of writing to clearly express one's views and their basis, and to argue cogently for or against a position are not only necessary to convince the examiners of the worth of the doctoral candidate and his/her research, but a valuable skill for life beyond the PhD, whether in the scholarly papers of the academic or in written communication in other fields of employment.

This is not to ignore the importance of writing in the production of the lengthy thesis, the usual product of the doctoral research on which the examiners judge the candidate, and to a certain extent his/her supervisor/s and university.¹ Most graduate handbooks and guides note that the written thesis should effectively communicate the nature of the research and its significance and demonstrate the contribution of the writer to his/her field of knowledge. There is a general expectation that the thesis should be "written in succinct, polished English" and demonstrate "an ability to communicate research findings effectively in the professional arena and in an international context" (Powles, 1994 p. 26). One must therefore obviously focus on writing to ensure the production of a thesis of an acceptable form and standard.

Students, especially international students paying substantial fees, may expect improvement in their writing skills to be one of the returns for their investment of time and money (see Aspland and O'Donahue 1994). Some students do identify writing skills as one of the most valuable outcomes of their graduate experience (Thesis News 1997, p. 5). All students should perhaps be encouraged to see it this

way in view of the fact that employers have noted the need for more attention to communication skills, both oral and written, in the graduates they employ (see for example Clark 1996). As an academic in the survey conducted by Noble (1994) observed, a PhD "is an excellent opportunity to improve the student's ability to communicate [though] it is too rarely used for this purpose" (p. 88).

A focus on writing should therefore not be seen as related only to remedial assistance, particularly in relation to students for whom English is a second language. Nor should it be a focus only towards the end of the PhD. The development of writing should be considered an integral part of the PhD process alongside the development of other generalisable skills such as the ability to question, analyse, investigate an issue in depth, and conduct independent research. While few people will have to write anything comparable to a PhD thesis again, many will be able to use to advantage the high level skills in written communication they gain during their candidature.

As to why writing skills should be a relevant topic of discussion in 1998, one can cite several reasons. Firstly, the nature and purpose of higher degree study (and, for that matter undergraduate study as well) are being questioned as higher education becomes more the norm than the province of the privileged and gifted few. Not all PhD holders are destined for an academic or research career. It is therefore wise to consider the more generic and transferable skills that several years of doctoral study can develop. The skill to effectively communicate in writing is clearly one such skill.

Another reason is that the greater diversity of candidates which has accompanied their growing numbers, together with the rise in numbers of international students, are placing increasing pressure on supervisors and academic support services.² Such changes are highlighting discrepancies between the level of academic writing skills students are bringing to their PhD study and those required to write a satisfactory thesis and enter the research culture of the discipline concerned. In addition, high fees in some areas are leading to 'customer' demands for service and satisfaction, again increasing pressure on academics to deliver. This is compounded since the wider range of institutions now offering PhDs means new and increasing demands on academics with perhaps little experience of supervision.

All these factors make it timely to review and discuss strategies which can assist students in their struggle to become effective, confident communicators in writing, not only to satisfactorily complete the PhD but also for future career prospects. Before considering some of the more general strategies which have been suggested in the literature, I will discuss some issues related to international students, for the following reasons:

1. They are often identified as the group with the most writing problems and may be a particular source of concern because of the level of assistance and amount of time they require to satisfactorily complete a PhD.
2. They represent an important economic asset to the university in today's financial environment. It is therefore wise to consider how to meet their

expectations to successfully complete their courses in the allotted time so that they will return home 'satisfied customers' who will recommend the institution and/or department to others.

3. Much of my own teaching and tutoring experience has involved international PhD candidates.
4. Coming to grips with the needs of international students can help institutions examine their student services and graduate education practices in general since, as Ballard and Clanchy (1993) note, "in many ways overseas students merely magnify the basic issues and problems which can arise in the supervision of all graduate students" (p. 61).

INTERNATIONAL STUDENTS

International students are a diverse group. The differences between them are as great as between them and Australian students (another heterogeneous category). Some international students may have what supervisors at the ANU judge to be better English than Australians (Cullen et al 1994). At the other extreme some have profound problems with what might be called 'the mechanics of writing' (sentence level grammar for example) which make it difficult for supervisors to concentrate on the structure and content of assertions and arguments which are the core of their theses. This complicates the work of the supervisor, and can be extremely time consuming, especially during the drafting of the thesis. Others fall somewhere between these two extremes.

Some involved in graduate education assume that many problems would disappear if international students 'had enough English' when they were accepted into the program. The situation is more complicated than this however. Firstly, while problems with the structure of the language certainly complicate the situation, writing a PhD presents new challenges for all students. It demands a particular level and kind of thinking and analysis. Formulating, justifying and communicating the resulting ideas and arguments coherently and logically in writing is difficult, especially when the writing itself is part of the process. This difficulty is compounded if a student is changing disciplines. As Williams (1990) notes:

when a writer new to a field is simultaneously trying to master its new knowledge, its new style of thinking, and its new voice she is unlikely to manage all those new competencies equally well. Some aspect of her performance will deteriorate: typically the quality of her writing. (pp. 11-12)

For students whose first language is not English, the regression may be more marked at both sentence and discourse level. Cadman (1997), Leki (1990), and Wilson (1997 and personal communication) all note that there can be apparent regression in grammatical and other structural competencies in the writing of students who have previously been able to produce writing of an adequate standard for their academic courses by, for example, identifying and comparing relevant sections of the literature and paraphrasing the ideas of others into

acceptable arguments or answers to given questions. In the words of "a committed and perceptive Japanese PhD student...in her learning journal":

when I presented only information and other people's ideas, at least people could understand what was written, even though they could not understand what I was going to say about it. It is like swimming with no breath. I can swim effectively so long as I do not breathe. But once I take a breath, my swimming form will break down completely. In the same way, my writing broke down as soon as I put in my voice. (Cadman, 1997, pp. 9-10)

International students are not alone in their need to develop the type of writing required at graduate level, though their additional problems may make their needs more obvious and pressing.

Secondly, there is the danger that muddled writing may result from a lack of understanding on the part of the student of the nature of the appropriate academic genre. Such misunderstanding often stems from different underlying cultural assumptions about the nature of knowledge and scholarship and the supervisor/candidate and reader/writer relationship. By assuming that the problem is purely linguistic, these misunderstandings may never be revealed and thus never clarified (see Ballard & Clanchy 1993). Once again such problems are not restricted to international students; Australian students come from a variety of cultural backgrounds and have had differing experiences of education. Making the conventions of the genre explicit will therefore assist international and Australian students alike.

The idea that English is the problem and that students can be referred to experts to 'sort out the English', leaving the supervisors free to concentrate on content ignores one of the major points of this paper that writing is an integral part of the research process. Supervisors therefore obviously have a role to play in the development of a student's written work. They are not only the main readers of the students' initial attempts to communicate their ideas and line of reasoning but are also members of the academic discourse community with which the students are trying to engage.

This is not to say, of course, that the sole responsibility rests here. Others, including the students themselves, have a part to play (see below). The intertwined nature of writing and the training of an independent researcher, however, suggest that close cooperation between all parties involved in graduate education is required, and that this holds true for all students, not just international students.

GENERAL STRATEGIES TO ASSIST STUDENTS

There are a number of publications for both supervisors and students which contain advice on how to assist students develop their writing skills and write a satisfactory thesis. Many are written for individual university faculties or departments (see for example ANU 1997b; RSPAS 1995; Wolfe [online]). Such documents are useful since they reflect the particular demands of certain

disciplines, and the ethos and student populations of the departments concerned. In this section I will briefly discuss what seem to be the most common or most useful strategies mentioned in the literature.

It is often suggested to supervisors that they should require written reports throughout the course of the PhD. These can be in many forms, for example book reports, literature surveys, personal logs, outlines of the study, draft introductions and conclusions (see Gottlieb 1994 for more examples and ideas). This practice may be more common in some disciplines, eg the humanities, which involve more writing, more individual research and where writing the thesis is equated to the PhD (in contrast to some sciences where there may be a strong distinction between "doing the research" and "writing it up" (Cullen, 1993, p. 42)). Regular written submissions assist supervisors to monitor students' progress in their research in terms of direction and depth, and allow early identification of problem areas in relation to the structure of written English (sentence level grammar for example), allowing time to address these at an early stage. The latter recognises that time is required to develop writing skills and practice is of the essence.

Gottlieb (1994) points out the importance of returning written work to students promptly and with appropriate feedback. She advises feedback in writing, even if the supervisor has discussed the report with the student face-to-face, since this gives the student a permanent record which can be considered and referred to later.

Another suggestion is that students be advised to read completed PhD theses of a high standard to get a feel for the style and level of writing required in their discipline area. Previous theses also provide models for the more technical aspects such as footnoting, referencing, form of bibliographies etc. This is good advice but tells students little about the process which the writers of these theses went through. Supervisors who share with students their own experiences and frustrations about writing, especially about projects with which they are currently engaged, can provide information about the process as well as the product. This focuses students' attention on the role of writing in developing and refining ideas and arguments, as well as helping make explicit why the academic text is structured as it is. Another strategy which encourages students to clarify their message is to ask them to write in a non-academic form, for example a letter to a friend, explaining what they are doing and thinking and why. Other useful techniques are discussed by Gottlieb (1994, p. 115), and Clerehan and Moodie (1997), who offer supervisors an approach to teaching writing based on genre theory.

University publications and other guidelines also usually alert supervisors to the various support services and resources available within the university as a whole and within the faculty and department. Some academics think that these are mainly for students who have particular difficulties and need remedial assistance of some kind, but most also offer general advice on study, research strategies, thesis writing and criteria for examination, either on an individual basis or in workshops, discussion groups etc, which would be useful for the majority of PhD candidates. In addition, of course, they do offer specific assistance to certain

groups, for example students from non-English speaking backgrounds. As noted above, however, such assistance can only help to a certain extent. In the end it is the supervisor, with his/her holistic view of the student's work and the disciplinary context, who has to deal with the student's writing.

EDITING

One particular, and apparently growing area of concern in universities relates to editing (see for example Thesis News (1997) and University of Melbourne (1997)). Editing is vital to the production of good writing. It ranges from rewriting and redrafting to proofreading and is a key element in the writing process. Assisting students to develop their editing skills should be part of the writing development process. Current discussions about editing, however, tend to revolve around concerns about the extent and level of editing assistance required by PhD candidates, particularly international students.

One of the problems immediately encountered in discussions and surveys about editing is definitional. Many people have a far narrower view of what editing encompasses than others. A useful categorisation is provided in Thesis News (1997, p. 3) which identifies three types of editing:

1. Content editing for proper logic, factual truth, sufficiency of evidence, and depth of insight.
2. Copy editing for paragraph organisation and form, sentence structure and grammar, word usage, spelling, punctuation, and so on.
3. Format editing according to an editorial style...Style includes everything from organisation of thesis chapters and parts, to the size of type font you can use.

Another way of looking at variations in what people mean by editing is the extent of the process: is one editing the entire document, or just one section or chapter?

I will not further discuss the third category of editing listed above, format editing. While vital for the thesis writer to be aware of right from the beginning to avoid frustration later, it is rarely an area of debate. Particular requirements as regards length, margins, paper size etc are usually set out in exhaustive detail in university handbooks (specifics which Kamler and Threadgold (1997) compare unfavourably with the much vaguer nature of the criteria on which examination of the thesis is based). The first two types of editing, however, are more problematic. The division seems quite neat and implies that it is possible to assign responsibility for each: supervisors can concentrate on content editing, leaving copy editing to the student or others who can help in this area. There are two major problems with this division of labour. One relates to the level and nature of institutional support and the other to the interrelationship between content and the language used to express it.

Most academic support personnel do not consider copy editing to be part of their role (though in practice they are often involved in such editing, see for example Spoke 1996). Nor will they look at whole theses, for practical and pedagogical

reasons. The onus then falls back on supervisors and students. Supervisors who are unwilling or unable to assist with copy editing pose particular problems for students for whom English is not a first language, since they rarely have the intuitive sense of 'correct language' that a native speaker can call on to copy edit, especially at the sentence level. Fellow students, native speaking friends and family or professional editors may then enter the picture, with or without the knowledge and/or blessing of the establishment.

The second problem relates to the fundamental interrelationship between content and the language used to express it. While in some instances it is useful to assume that the form and mechanics of writing can be neatly divided from content so that one can concentrate on either developing ideas about what one is writing about or on revising "linguistic choices for expressing what one is writing about" (Davies 1988, p. 131), the two processes are inextricably entwined in writing at almost any level. As Blakesley (1995, p. 194) points out, grammar and style are relevant to "the production of content itself". This is why supervisors, no matter how they consider their role, inevitably become involved in all levels of editing to some extent. This was demonstrated in a small survey conducted by ASGS (1997), which showed that the academics who responded made about as many corrections as the professional editors in respect of things like spelling, word choice, punctuation and grammar.

By the same token, those involved mainly in copy editing often impinge on content. Almost any advice to a student regarding an appropriate grammatical form, not to mention paragraph organisation or choice of vocabulary, can change the message. A change of verb tense from simple past to simple present, for example, can change a description of a specific event to an assertion of a widely held belief or understanding. Advice on articles (*the*, *a*) can likewise have an important effect on meaning.

In addition to pointing out grammatical infelicities and spelling mistakes, a person who sees his/her role as an editor will usually suggest alternative ways of phrasing passages to make their meaning clearer. Without being experts in the student's field, or judging or questioning the truth or quality of an argument, an editor can detect and query unclear or contradictory statements and suggest possible reordering of points to clarify or strengthen an assertion. Editors usually see themselves as acting as the readers' representative. As such they necessarily read for meaning. As a consultant employed by a university department to work with overseas PhD students on their writing, particularly when they are drafting their theses, I often suggest reordering, either within or between paragraphs, and question the meaning of a statement or its connection to the text around it.

Equity and Ethics

The nature and extent of the editing assistance available to students raises questions of equity and ethics. In relation to the former, the time and energy supervisors are willing, or are able, to spend on editing depends largely on individual choice and circumstance, particularly when one is talking about copy editing. Some supervisors discourage, or even prohibit, the use of professional

editors, putting students who cannot call on family, friends, advisers or other helpful academics in an invidious position. Others are happy to call on the assistance of editors, especially when these are associated with the department or available through AusAID funding. Add to this the fact that the extent of general academic support services in universities can vary, even within the same institution, and it would appear that luck, the amount of funding available and differing guidelines and policies (or a lack thereof) largely determine how much editing assistance a student can 'legitimately' access.

Ethical questions arise since a PhD thesis is examined on the assumption that it represents the work of the student, and there is a concern that editorial intervention may compromise this. This concern is found amongst both academics and professional editors. In recent years there have been debates on this issue in societies of editors in the majority of Australian states. As a result, some have issued guidelines for members working with tertiary students. In 1997 the ACT Society of Editors, for example, advised their members to discuss with students the relevant department's view on editing before accepting editing work and pointed out the desirability of obtaining formal departmental approval.

Such ethical concerns need to be seen in context. As Addison (1996) says "postgraduate students receive assistance from a number of sources (supervisors, family, peers etc.) throughout the development of a thesis. Editing is merely one contribution" (p. 65). Perhaps we need to reflect here on the nature and desired outcomes of the PhD process. While some areas, especially the humanities, have tended to see PhD education as a one to one process, largely between the supervisor and student, this is increasingly being questioned (in many areas of course, particularly science, it has never been the case). Students are actively encouraged to network and approach others for feedback on their ideas and written account of these. Some universities expect a PhD candidate to have a supervisory panel rather than a single supervisor (the ANU, for example, states there should normally be at least three on the panel). Research has shown that it is often the more enterprising students who seek help from the widest range of sources and personnel. It is therefore not necessarily "a sign of being dependent or in difficulty, and [can be] an effective strategy for students in learning more of the craft or 'artistry' of research and scholarship" (Pearson 1996, p. 313). The ability to network, establish good working relations with others, and make use of critical advice are also skills which will be useful way beyond the PhD, in academia or other fields. Giving a view from industry, for example, Clark (1996) notes that postgraduates "tend to have poorly developed people, leadership, negotiation and communication skills" partly because they "tend to be individuals working alone" (p. 33).

All editing assistance should, of course, be fully acknowledged in the same way as the assistance a student receives from many other parties in the development of his/her thesis.

The Way Forward

Instead of focussing on editing as a 'problem', it seems to me that effort could better be spent acknowledging and managing the role of editing (and if necessary editors), exploiting its potential to improve academic writing, and training supervisors and students to be more effective editors and readers of student writing. At present there seems to be a lack of open discussion of editing practices in universities, due in part I would suggest, to a reluctance to reveal the amount of editing taking place for fear of censure. However, the editing process, whoever is involved, can greatly assist in the development of the student's own editing skills and hence his/her ability to formulate and transmit ideas clearly and concisely to others in a written form appropriate for the context and audience. This potential needs to be recognised and exploited.

The role of those employed as editors requires particular attention. Such editors are unlikely to disappear from the PhD scene given the lucrative nature of the market and the demand for services. A crucial issue, therefore, seems to be how to better integrate them into the PhD process. To do this one naturally needs to know who the editors are, and what role, if any, the university has in their employment. Are lists of names made available to students who want to employ editors, for example, and if so, how are these lists compiled and vetted? Are editors, especially those employed through the university in some way, encouraged to see their job as an educational one and to interact with supervisors?

The danger with editing of course is that the student may just rely on the editor (who, let us not forget, may be the supervisor) and copy corrections and suggestions without internalising why the revised version is better nor being able to transfer this knowledge to other situations.³ It is necessary to actively involve the student in the process, which will be easier if there is a clear understanding that the development of writing skills is one of the objectives of the exercise, not just the production of a thesis. As one PhD student wrote in answer to a short questionnaire I circulated to seek feedback on whether my editing work was helping students improve their English:

The constant pressure for writing English and regular English checking together will enhance one's English writing ability intensively. PhD studies provide an ideal framework for this to happen. However, one has to have a strong desire for this to happen. If such motivation is lacking, even if one gets regular correction, one's grammar or writing ability will not improve.

SUMMARY AND DISCUSSION

In this paper I have argued that the development of writing skills should be seen as an integral part of the PhD educational experience, not only to produce a written thesis of an appropriate form and standard but also because such skills are relevant and transferable to life after the PhD. This should be recognised and acknowledged by all concerned in PhD education and training so that as wide a range of strategies and resources as possible can be accessed to help PhD

candidates develop their writing abilities. A focus on writing should not be equated with remedial assistance. All students have to come to terms with the demands of the rhetoric of their discipline and the genre of the academic thesis. I have examined the issue of editing in some detail since it appears to be a current area of concern. Rather than seeing it as a problem, however, I have pointed out that editing can be used to help students improve their writing. To exploit this potential, all those involved, including the students themselves, need to discuss and examine their current editing practices.

To summarise my views in terms of recommendations for action, I offer the following suggestions.

1. All those involved in PhD education, including students, should be encouraged to see the development of writing skills as an integral part of the educational experience, not only to successfully complete the degree but also for life beyond the PhD.
2. Supervisors should be aware of and discuss with their students the various purposes for which writing can be used during the course of the PhD. Supervisors should also try to make more explicit the rhetorical conventions of academic writing in their discipline.
3. Supervisors and students should be made aware of the full range of resources available to assist in the area of writing development and support. It should be made clear that such resources can benefit all students, not just those with particular language or writing problems.
4. There should be open discussion of the role of editing and editors in the PhD process at the department, faculty and/or university level with a view to developing policies and/or guidelines to:
 - monitor and manage the types and purposes of editing,
 - recognise the potential of editing to improve writing skills,
 - assist the work of supervisors and academic support personnel,
 - better integrate editors into the PhD process,
 - promote equity.
5. Any policies or guidelines developed should come to grips with the question of the use of professional editors.

NOTES

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1. While there are other examinable outcomes (noted and discussed in Noble 1994 and Pearson and Ford 1997) the thesis is still the most common form. For this reason it is the one I focus on in this paper.
2. The number of doctoral students tripled from 7,000 in 1989 to over 22,000 in 1996, and 13% of the latter were from overseas (Pearson and Ford 1997).
3. It must be said that research provides conflicting evidence of the extent to which written feedback on student texts leads to improvements in writing (see Fathman and Whalley 1990, Leki 1990, Spoke 1996, Millar 1997). This

is largely due to the number of variables involved, eg the number and kind of comments, whether errors or unclear writing are corrected or just indicated as needing attention, whether final versions or drafts are involved, and the nature of the individual consultations or discussions with students to follow up the comments (if any). How to measure improvement is also problematic; it depends on whether one is focusing on error free grammar, clarity of expression and/or quality of argument, development of which may lead to regression in the first two (as noted above).

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THESIS WRITING FOR SUPERVISORS

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ABSTRACT

This paper argues that supervisors need to consider what thesis writing support they believe is appropriate to provide postgraduate researchers. This decision will be guided by their perceptions of the roles they believe they should fulfil. This paper has suggested several roles: team leader, project manager, writing mentor, wordsmith, and editor. It argues that the supervisor must fulfil the role of writing mentor but that the other roles may be helpful. Ultimately, the decision about what assistance a supervisor provides with thesis writing will be based on the researcher's particular needs and on what the supervisor and postgraduate researcher negotiate at the beginning of the candidature.

INTRODUCTION

This paper looks at the role of supervisors in assisting their postgraduate research students to write what is possibly their most difficult assignment. While clearly the process is the task of the research student, the way the supervisor outlines that task for the student will have a critical impact on the final result. A supervisor must be clear at the outset of a supervisory agreement the level of commitment he/she will make to the student's actual writing process.

But why focus on thesis writing for supervisors? Having successfully completed a PhD does not make a supervisor an expert on how to supervise others, and especially an expert in the art of thesis writing. Supervisors often do not understand how to structure a thesis; they need to know about building and sustaining the argument and knowing when there is 'enough' and how to convey this to postgraduate research students. They also need to know and communicate to the student the limit of their commitment to the project.

Supervisors might reflect on the extent of their commitment to their student's thesis writing. Various roles the supervisor might perform include team leader, project manager, writing mentor, wordsmith, and editor/proofreader. This paper will examine these roles and investigate the extent to which each is critical and/or appropriate for supervisors, given their host of other competing commitments in academia in the 1990s.

THE SUPERVISOR AS TEAM LEADER

This paper will firstly examine whether or not the role of team leader is appropriate for supervisors. Too often discussions about postgraduate research are concerned with rules and regulations, codes of conduct and the like. But there is often not enough emphasis on the enormous excitement of doing research.

Many researchers have a burning question they need to answer. In pursuit of answering that question they will spend long hours each week reading, carrying out experiments, reflecting, debating with their supervisors and others, testing hypotheses, going back to the drawing board and then wondering how this will all fit together in a thesis. They need to be reminded about how important their work may become.

Masters and PhD researchers may well break new ground in their discipline. It is probably one of the few times in a postgraduate's life when they have the time and space to do research for research's sake and when the results will be their own.

The creativity of the task is often reflected in the energy that goes into the research and particularly into postgraduate's writing. The reason for raising this is that this creativity often sustains postgraduates through the rough patches of their candidature. The role of the supervisor in continually reminding them of this creativity—even when results are slow—is an important one.

Supervisors have an additional team leader role in linking their postgraduates to the research culture of the Department. Without a strong Departmental research culture it is hard for this creativity to flourish. Supervisors should ensure that the Department provides their researchers with at the very least a minimum level of resources, and inducts them into its research culture. This can take many forms: formal inductions for postgraduates, postgraduate seminar programs, staff/postgraduate seminars, and social functions for staff and postgraduates. A Monash Study found that postgraduate coordinators believed it was important to foster a good research culture for postgraduate researchers (Monash Postgraduate Association 1996, p. 22). Moreover, a strong research culture can influence completion rates for postgraduate researchers. Whittle's (1992, p. 86) study at the University of Adelaide found that Science candidates completed their higher degrees almost four times faster than their peers in Arts, and that factors associated with the different research cultures of the two faculties contributed to the disparity in completion rates.

THE SUPERVISOR AS PROJECT MANAGER

It may be useful for supervisors assisting postgraduates to research and write a thesis to see their role as project management. The thesis could be viewed as a task to be completed; it is divided into component parts, with timelines, budget

and a mechanism for continually reviewing the process. Moses (1992, p. 20) is clear that one of the supervisor's role in the writing process is to "encourage writing and ensure the student starts early and finishes in time". To set up the thesis project in this way will assist postgraduates in the tasks of project design and time management in their future careers.

Too many Australian research postgraduates, according to Dr. Julian Clarke (1996), Group Director F. H. Faulding and a member of the Business Higher Education Round Table, have little or no understanding or awareness of: planning and time management, team skills, experimental design, context, social and business awareness, communication skills, occupational health and safety, good laboratory practice, good clinical practice and good manufacturing practice and management principles. He added that "the best postgraduate students are those who have already had a broad work experience".

Writing the candidature proposal in a timely manner can be the first major task of project management for the student, encouraged and directed by the supervisor. The thesis proposal is the first opportunity for postgraduate researchers to learn to distil and convey a proposed research methodology. It may be that this proposal becomes the backbone of their thesis. But often they will need to discard most of this as their research moves off in a different direction or the hypotheses as outlined in that proposal are unsustainable.

The timeline presented in the candidature application should provide a useful tool for both supervisor and postgraduate to ensure that the research and especially the thesis writing keeps on track.

The candidature proposal is also critical to the overall thesis writing process. Nightingale (1992) argues that it is "important in the process of helping students write a good thesis or dissertation" (p. 17) it gives them a more immediate deadline; preparing the literature review allows the supervisor to help the student to structure their work and monitor its progress; it helps to define and contain the project; allows the supervisor to identify potential problems in writing style or competencies; and finally, supervisors "can begin to encourage students to use writing as a part of their research process".

THE SUPERVISOR AS WRITING MENTOR

Once the thesis proposal is accepted, the role of the supervisor in the writing process increases. Writing from then onwards should be ongoing with the supervisor preparing the student for the substantial writing task ahead. Moses (1992, p. 20) asserts that the supervisor's role as a writing mentor includes: encouraging writing; trying to help the student to get over any 'writing block' by setting manageable writing tasks; referring the student to reference books on structuring thesis; giving critical and constructive feedback on early drafts and

reports about style, structure, argument, analysis etc.; and assessing the overall structure of the thesis.

Supervisors need to encourage their postgraduate researchers to be disciplined in writing. One strategy suggested is for students to write a chronology of what they are doing and what they think they have achieved for the week. If nothing else they can look back at this further down the track and plot the progress they have made with the thesis. Some Departments in several Universities have suggested a work book or working 'diary' of what they are doing, filled out at least weekly.

The chronology, workbook and diary all have a similar focus—helping postgraduates to plot exactly where they are going with the thesis. Their end product may flow from the process of what they record in the workbook. Postgraduates should fill the workbook out at the same time every week. It is easy to let the task slide for one week, then another, then another. This narrative/workbook approach is not writing a thesis *per se*—what it does is try to focus a postgraduate researcher's thoughts and, most importantly, get them used to writing every week if not every day.

Nightingale (1992, p. 173) emphasises the importance of supervisors helping students “appreciate the power of writing as a tool for learning” and of discouraging the notion of ‘writing up’ the research because this suggests that “the research happens and then the writing happens”. Zuber-Skerritt and Knight (1992, pp. 181-184) argue that an effective way to help postgraduates to overcome barriers to writing involves a three dimensional integrated workshops approach: cognitive, skill development and affective. The cognitive approach aims to help students see the different purpose and function of first and final drafts of chapters. In workshops they found that many students “had intended to write up the dissertation in its final form without the intermediate steps of constructing a concept map or flow chart of ideas, writing a rough first draft, revising and editing and then rewriting” (Zuber-Skerritt and Knight 1992, p. 182). The skill development approach involves postgraduates interacting with other postgraduates and supervisors in a workshop where they bring along a draft structure of their thesis and discuss its strengths and weaknesses; while the affective approach brings postgraduates together to discuss common problems in a supportive workshop environment. It might be worthwhile for Departments to organise such workshops to assist postgraduate researchers with the task of writing.

The critical role of the supervisor as a writing mentor is to manage the process of developing the structure of the thesis. No amount of deft editing at the end can substantially improve a thesis that has a poor structure. What follows is a discussion of the main components of a thesis and the supervisor's role in helping students draft and refine theses.

The Structure

Postgraduates often express overwhelming concern about developing the structure for their thesis. The role of the supervisor is to reassure them that it will eventually fall into place, while at the same time encouraging continuous trying out. The structure of a thesis is, by its academic nature, quite formal. It must be very tightly structured so that it stands up to the often quite tough scrutiny of examiners who are generally national or international experts in the field of their research.

The structure of the thesis is not something that will be defined at the beginning. It may not even be very defined when the postgraduate is writing and submitting the thesis proposal. But hopefully by the time they start the final draft of the thesis they will have some sense of its structure.

The structure would normally include: synopsis or abstract, introduction, literature search, methodology, results, discussion and conclusion.

Synopsis or abstract

This is a concise statement of the thesis and cannot be effectively written until a postgraduate researcher completes the thesis. Supervisors should discourage students from even thinking about the abstract until the final phase of thesis writing.

Introduction

This should introduce the topic and something about the context in which it is written, what Evans (1996, p. 62) calls the ‘problem statement’. It should also set out the aim of the thesis, what it wants to find out, and how the candidate might analyse and/or test this. It should not talk about the working out of the methodology or about results—that would be like putting the cart before the horse. It should be short—an introduction should not be more than a few pages.

Supervisors should encourage candidates to revisit the introduction after they have finished writing the thesis. It may well be modified in the light of the results produced.

The literature review

This allows the candidate to locate the thesis topic within a much broader research area and to refine the aims of their project. It may be helpful for supervisors to suggest that candidates write down the relevant and/or useful points from each reference as they go and not let the books pile up on their desk until they receive lots of overdue library notices and cringe each morning as they sit at their desk, at this mountain that threatens to consume them. As the search proceeds there will be themes that emerge. So that besides the summary of each book, they will begin

writing an 'essay' on what the literature is telling them. One way of doing this is looking for major themes that emerge from the summaries that they have made. Some postgraduates have difficulty in ordering material for the literature research (see 'Ordering Material' below).

Supervisors should guide researchers through the process of collecting and analysing the literature. It can also be helpful if they are introduced to the conventions of footnoting in their discipline early on. This avoids a great deal of revision at a later stage and rechecking on references.

Plagiarism is one issue that needs to be discussed in relation to the literature search. While academics probably believe that plagiarism is a topic adequately covered at undergraduate level, some postgraduates are less than proficient in using references. Poor use of references can compromise an otherwise good piece of research. Betts and Seitz (1994, p. 81) suggest the following ways in which students may plagiarise:

- verbatim phrases and passages used without quotation marks and/or without a reference
- paraphrasing and presenting an author's work without a reference
- giving a direct reference to authors the candidate has not read
- copying other student's work
- using material written in conjunction with others without prior permission
- using material that has already been submitted for assessment elsewhere.

One of the important tasks for supervisors is to ensure that their postgraduates use references accurately and give due acknowledgment. Examiners can be quite critical of careless referencing.

The methodology

A critical role of the supervisor as writing mentor is to help the researcher develop a methodology and to relate that back to the aims of the thesis. The methodology will emerge from the literature review and from the candidate's own interests. Phillips and Pugh (1994) suggest that they write the method chapter first, because they do know what they did and how they did it. They assert that it might be a good way of starting on the thesis even though it may eventually be located in the middle of their thesis.

Phillips and Pugh (1994, p. 14) assert strongly that the scientific method is hypothetico-deductive rather than inductive. They say that the myth of scientific method is that it is inductive: "The myth is that from a disorderly array of factual information an orderly, relevant theory will somehow emerge". Rather, they argue, hypotheses arise by guesswork, or by inspiration, but having been formulated they can and must be tested rigorously, using the appropriate methodology:

If the predictions you make as a result of deducing certain consequences from your hypothesis are not shown to be correct then you must discard or modify your hypothesis. If the predictions turn out to be correct then your hypothesis has been supported and may be retained until such time as some further tests show it not to be correct. Once you have arrived at your hypothesis, which is a product of your imagination, you then proceed to a strictly logical and rigorous process, based upon deductive argument—hence the term ‘hypothetico-deductive’ (Phillips and Pugh 1994, p. 15).

Evans (1994) also takes up this point. He says a student must be quite clear about the difference between the aim and the hypothesis: “Aim is to do with directing something towards an object, whereas hypothesis is a proposition made as a starting point for further investigation from known facts” (p. 76).

Evans suggests that three steps follow once researchers have chosen their hypothesis—or that which needs testing. Firstly, he says, they need to select their method of testing this hypothesis—they need to review the methods available to them and then present reasons for selecting the methods used (Evans 1994, pp. 77-81).

Secondly, study versus case study. Evans (1994, pp. 77-81) says researchers must be clear whether they are investigating a phenomenon in its own right or as a case study from which they might later draw some generalisations. They must be clear about which approach they are using and not jump from one to the other.

The third point he makes is that researchers must design their research instrument. “You have told the reader what research method you used and why you chose it. Before you describe the results obtained by using this method, you must first describe in detail the way you applied the method, and why”. (Evans, 1994, p. 81).

Results

It is important that supervisors encourage postgraduate researchers to present their results in a systematic and comprehensive way. It is also important that they guide and steady postgraduates through the data collection and analysis. Every student at some stage will experience difficulty, as Sternberg (1981, p. 123) emphasises, and will “have to call upon his own ingenuity and resourcefulness to get through it”.

Evans (1994, p. 91) suggests a few useful rules for postgraduate researchers:

- Record and file all data in a systematic way.
- In the report, offer the reader the opportunity of examining these data by private arrangement.

- Include enough of the data in an appendix for the reader to see how it was collected, what form it took, and how it was treated in the process of condensing it for presentation in the results chapter.
- Present the results in the chapter itself in such a way that it is clear how they relate to the hypotheses.

Discussion

Whether or not supervisors adopt a ‘hands on’ role in thesis writing, the discussion chapter more than any other requires their close attention. This is the critical section of the thesis and also the most exciting. Because here postgraduate researchers demonstrate how their results or findings add significantly to the field of their study. Discussion must be well-focused. It must explain and/or amplify their results, making links backwards and forwards.

Evans (1994, pp. 98-99) says that this chapter often involves more pain than any other, arguing that it is partly because of the tussle between our conscious and subconscious, and we are often moving towards conclusions to our research in the subconscious. The task then is to bring these subconscious conclusions to our conscious realm and write them down.

And he suggests the following strategy which supervisors might also find helpful in guiding their students:

1. Write down all the things that you know now that you didn’t know at the start of your research—perhaps do it with your supervisor sitting there to prompt you.
2. Sort these into groups of associated ideas (clustering).
3. Give a heading to each group.
4. Each section will have several points—these could form sub-headings within the section. Then sort the sub-headings into a logical order, rejecting the ones that are irrelevant, adding others and also points under headings. This will provide the tentative structure for the discussion chapter (Evans, 1994, pp. 98-99).

Nightingale (1992) suggests a similar method identified as brainstorming: jotting down ideas as they occur without sorting or shaping them; or “What I really mean is” (the trigger is WIRMI) “which directs thinking to the important idea or theme for this piece of writing”(p. 176).

Whatever the strategy, it is important for the supervisor to get students writing freely in this section of the thesis. Once the ideas are flowing and their confidence has increased, the material can then be shaped critically.

Conclusion

Supervisors should encourage students to keep conclusions short and to the point. Some students have a tendency to retell their whole thesis in the conclusion. It should not introduce new material. It should look at the aim of the thesis, and draw conclusions only from the discussion chapter. A conclusion is not a summary of the thesis.

Bits and Pieces

There are lots of other bits and pieces that need to be included in a thesis and the supervisor's role is to make sure that the student doesn't overlook these. They include: a title page—title, author, month and year of submission and degree for which it is submitted; dedication and/or thanks; abstract—discussed above; table of contents—these are critical. They are the key to readers finding their way through the thesis. If the table of contents is messy, the thesis will also be messy. The supervisor should provide guidance about how the Department requires the table of contents to be set out to ensure that it is an efficient 'map' for the body of the thesis; list of figures which must correspond with those in the text; list of tables; appendices—each needs to be numbered and have a heading. Postgraduates are often confused about the purpose and style of appendices. Some list them as extra chapters, while others have one 'super' appendix which needs to be broken down and each appendix clearly titled; glossary; references or bibliography.

The importance of linkages in the thesis

Supervisors, with their considerable experience of researching and writing, need to stress the importance of linkages in a thesis. Some students are good at weaving back and forward through the argument in their thesis and keeping the reader with them. Others are not. It is crucial that candidates continually make these linkages. They are an excellent way to avoid repetition and to strengthen the fabric of the thesis. For example, if their literature search has revealed some interesting themes they can, once they have their own results, refer back to the wider literature to either confirm or dispute what this literature says. Instead of discussing the literature in detail in the chapter discussing results, a linkage such as 'as discussed in section 2.4.1 on xyz' can take the reader directly back to that discussion which is now relevant in say chapter five. Also, it is important in the discussion chapter to relate back to the chapter where the researcher developed the hypothesis—because the discussion chapter is testing out whether or not this hypothesis is actually sustainable.

THE SUPERVISOR AS WORDSMITH

The *Macquarie Dictionary* defines a wordsmith as “a professional writer, or one who displays particular talent for writing”. The question of the degree of assistance supervisors should provide with writing is often open to debate. Some may take the view that once students reach the level of postgraduate research they should be adept at the nitty gritty of writing sentences, paragraphs, punctuation and the like. This is to presuppose that supervisors have become experts at grammar and syntax in the course of their career. It is also to presuppose that somewhere in undergraduate study these skills are automatically acquired. Another issue is the increasing number of postgraduate researchers for whom English is not their first language and who have difficulty with written English. Moses (1992, p. 20) argued that the supervisor’s role in the writing process included: encouraging the student to refer to reference books on language, style etc. and ensuring expression is of sufficient standard.

For those supervisors who do believe their role is not only to induct students into the art of writing but also to make that writing flow, the following comments are offered:

Ordering material

Some students find difficulty in ordering their material. There are various useful devices that supervisors might suggest they use:

From the beginning develop a good filing system for photocopies of material, notes and results.

Keep notes in sequential files which are numbered and dated; that is, the date on which they commenced putting information in the file. It will then make it easier to work out in which volume of a large collection of files they need to locate material.

For the literature search, as suggested previously, they should extract and summarise the main points of each text as they go. If a book isn’t really relevant or helpful, they should make a note to that effect.

Postgraduate researchers should always be methodical in how they record interviews or take down the results of experiments. If they do not have a good, disciplined filing system they cannot organise material to write chapters.

How to write a plan for a chapter

Supervisors should encourage postgraduates to write a tightly structured plan or outline of each chapter. Before actually writing the chapter they should show the plan to their supervisor and also to other postgraduates who know a little about their research. The general rule is that if the plan is a good one, they will produce

a good chapter. So it is important to get the plan for the chapter tight before they begin writing; hence the need for as much feedback as possible. Writing the chapter then becomes a matter of putting the bricks or boards on the framework; in this instance, putting the words and description around the tight plan.

How to write paragraphs

Postgraduates who attend thesis writing workshops appear to know little about the purpose of paragraphs and often cannot identify topic sentences. They often ask how long a paragraph should be. Experience as a freelance editor suggests that paragraphs should not be more than about 20 lines. If the information under the candidate's topic sentence all relates to it - but the paragraph is getting too long—they should break the paragraph and start a new one, making sure that there is a strong link back to the previous paragraph.

Keep sentences short

Supervisors should encourage students to write short, direct sentences. One of the most time consuming tasks for an editor is trying to untangle long, complicated sentences. Short sentences, preferably under two lines in length, keep the readers attention. When the candidate has finished a chapter they should read it through at least once looking for sentences that are too long to see where they can be cut.

Avoid being pedantic

Postgraduates have a tendency because of the formal structure of a thesis to repeat words and phrases over and over again. They should be encouraged in the final draft to loosen up their style and let sentences flow.

Avoid 'jargon'

Some postgraduates love using technical terms for their own sake. An intelligent lay person in a discipline other than theirs should be able to read and understand what they write, even though they do need to use some technical terms specific to their discipline. Evans (1996) calls this practice 'thesisese', giving as examples terms such as "observational investigation" and "political institutional impediments" to which could be added words like "systemic inequality" (p. 49).

Passive tense

Professional editors spend much time turning around the passive tense—to take sentences from passive to active tense. Nothing is more jarring for a reader than reading page after page of 'it was considered', 'it has been argued that', 'the experiment was conducted to find out xyz'. All these examples of passive tense beg the question of who considered? who argued? who conducted the experiment?

Supervisors can assist postgraduates in the craft of writing and communicating ideas by identifying passive tense early in the project and discouraging it.

THE SUPERVISOR AS EDITOR AND PROOFREADER

Increasingly, supervisors are encouraging postgraduates to use the services of editors and proofreaders. There are a few schools of thought here. Some academics think it is a deplorable trend and argue that the student's work should be submitted as it stands. But others, with a demanding teaching and supervisory load, simply can not cope. They don't see their role as painstaking editing, yet they can often see that a thesis requires this close attention. Still others would argue that the supervisor's role in the writing process is to "go through [the] completed draft thesis for final criticism" Moses (1992, p. 20). The emphasis here appears to be on the argument rather than syntax.

The University of Melbourne Postgraduate Association (UMPA) in 1997 convened a working party on postgraduate editing issues. It found a gap in expectations between supervisors and students regarding editing. Some supervisors believed they provided adequate editorial assistance, but students expressed the need for additional support (Evans, 1997, p. 3).

UMPA argued that it is important to clarify roles and limitations for both supervisors and students; that it might be advisable to formalise student/supervisor expectations in a letter or learning contract; that students and supervisors should recognise that postgraduate students—especially local NESB students and non English speaking background and English-speaking International students—may need support with editing from staff other than supervisors; and that students would like more training in critical expert reading and editing skills and be able to work in editing groups with other students (Evans 1997, p. 4). Moses (1992) suggests that it is clear that part of the supervisor's role in the writing process is to refer students to those who can help with English if necessary (p. 20).

One recommendation of the UMPA Working Party was that training for supervisors needs to include information on editing and on reading students' writing, with particular emphasis on problems encountered, responsibilities and limitations and include information on other support services. Also, discussion about supervision and writing issues should take place on a department level Evans (1997, p. 5).

The Council of Deans and Directors of Graduate Education in Australian Universities in October 1997 considered the UMPA report. In notes prepared for that meeting, John Curtain argued that there had been changes in the approach to thesis writing in the last twenty years. Now, he asserts, theses are "allowed to be more like a book". He then asks: "If the rules have changed, if broader

communication can be the aim of the thesis, does this more readily allow the involvement of an editor” (Curtain, 1997, p. 2).

Clearly supervisors need to discuss the issue of editing within their Department. In turn Departments need to produce some guidelines for both supervisors and postgraduate researchers on this matter.

There are important ethical considerations here. The degree of editing may impact on the originality of the research. There is also the question of equity. If a supervisor closely edits one student’s thesis, should he/she closely edit all his/her postgraduate researchers’ theses?

CONCLUSION

Academics choose to supervise postgraduate researchers for a variety of reasons. What this paper suggests is that they need to consider what thesis writing support they believe is appropriate to provide postgraduate researchers. This decision will be guided by their perceptions of the roles they believe they should fulfil. This paper has suggested several roles: team leader, project manager, writing mentor, wordsmith, and editor. Clearly, the supervisor must fulfil the role of writing mentor. Ultimately, the decision about what assistance a supervisor provides with thesis writing will be based on the researcher’s particular needs and on what the supervisor and postgraduate researcher negotiate at the beginning of the candidature.

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MANAGING THE TRANSITION: DEVELOPING RESEARCH CONCEPTS AND SKILLS WITH NON-TRADITIONAL POSTGRADUATE STUDENTS

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ABSTRACT

In 1995, in keeping with nation-wide trends in Australian universities, the Department of Education at Victoria University of Technology became proactive in seeking enrolments of students from diverse non-traditional backgrounds in postgraduate research programs. Many students who enrolled did not possess the usual background experience in research methodology, either in the form of a formal course of study or previous research experience, but were accepted because they were able to demonstrate capabilities in related activities which indicated their aptitude for studying for a research degree.

To assist these students in making the transition into research culture, a weekly discussion group, additional to the normal supervisory arrangements, was convened. A range of issues, including research philosophies, project conceptualisation, methodology selection, personal challenges and administrative procedures, were discussed. As a consequence of the enthusiasm shown by the initial participants for this activity, students and staff from other departments and faculties joined the sessions.

In second semester 1996, a formal evaluation of the activity was conducted. The organiser sought to determine the contribution of the discussions to the students' academic development, and to the fostering of a research culture amongst the participants. The findings indicate that the opportunity for students to speak in a diverse group to resolve project dilemmas as well as to showcase their own work, made a significant contribution to the development of broader understandings of the research process as well as stimulating deeper learning about specific aspects of research design, methodology and analysis.

INTRODUCTION

This paper describes a program which was offered by the Department of Education at Victoria University of Technology (VUT) in response to a perception that some postgraduate research students from non-traditional academic backgrounds were not gaining the maximum benefit from their

university experience. The program, established in Semester II 1994, was the subject of a 'snapshot' formative evaluation (Scriven, 1967) conducted in the second half of 1996 and the first half of 1997. The paper describes the interventions which were introduced in an attempt to enhance the students' educational experience, outlines the evaluation strategies used, reports the main findings, and concludes with comments on the value of students learning in a social context at a postgraduate level.

Background

At VUT, there is a proud history of providing access to higher education opportunities for students from sectors of the community which, in the past, have been under-represented in universities (CTEC, 1983). Recently, in response to government pressures to increase postgraduate research enrolments, access opportunities were extended to include entry to higher degrees. As a consequence, many departments quite suddenly had greater numbers of research students from a variety of academic, language, cultural and social backgrounds. This situation enriched the cultural perspective which VUT could bring to the research arena, particularly in the critical areas of human services such as health care and education. Whilst this enriched perspective was welcomed, the increased diversity at the postgraduate level did bring with it a number of challenges. One was that many of the tacit understandings once held by staff of the preparedness of students for higher degree studies, were no longer appropriate. A factor which added complexity to this situation was that many staff were completing their own higher degrees. Hence, there were too few staff with suitable formal qualifications and experience available to supervise the increasing number of postgraduate research students using the traditional one-to-one supervisory model.¹ As a result of these converging factors, staff in some disciplines instigated a variety of strategies to assist non-traditional students in adapting to the culture of higher degree studies.

The issues which emerged very early in VUT's transition from a predominantly teaching institution to one with a greater emphasis on research, included (i) the creation, interpretation, implementation and revision of postgraduate administrative regulations and procedures, which were unfamiliar to staff, (ii) the relative lack of experienced supervisory staff which threw much responsibility and work load upon a few staff within an area, and (iii) the generally early state of development of a research culture within the institution which could not provide entering students with support mechanisms and models of ways of acting which are an important feature of enculturation inherent in established research schools.

In the comparatively new higher education fields of study such as Nursing and Education, students are often interested in pursuing projects which are most appropriately investigated using qualitative approaches. Because 'traditional' research managers often were familiar only with the conduct of research within the quantitative paradigm, this resulted in further dimensions of unfamiliarity and

tension to the organisation of research across the institution. For example, there was a need to modify administrative regulations which were exacerbating the feelings of isolation experienced by research students in these newer fields of study.

DESCRIPTION OF THE INTERVENTION

To help deal with these phenomena in the Department of Education, a weekly discussion seminar was established for research students to support the work of the supervisors by providing students with a forum in which some of the above issues could be addressed. A 'twilight' midweek meeting time was chosen to maximise the opportunity for both full- and part-time students to attend. The group met for 48 weeks of the year. The 'core' participants were students and staff from the Department of Education, but students and staff from Nursing, Business and Engineering also attended. On several occasions visitors from other institutions participated. During the time that the program evaluation was conducted, 42 people had some involvement with the seminar sessions. There were usually 12-15 present at any one of the seminars.

This discussion seminar did not have any formalised assessment nor attendance requirement. It was emphasised to the participants from the outset that it was a voluntary, interactive and open forum to which both students and staff with an interest in research were welcome. In the early stages, the discussions were typically led by the group organiser who is a staff member of the Student Learning Unit. However, over time, it became usual for student participants to take the lead.

The Department of Education was generally concerned that beginning students receive appropriate assistance in reaching understandings about the practices and procedures of postgraduate research as quickly and as effectively as possible. Because research performance in Faculties is measured partly by completion rates, conference attendance and publication record, an overt aim was to skill students in these areas. However, these activities were never emphasised at the expense of more long-term educational aims, which were grounded in a student-centred learning philosophy (Rogers, 1961) and a collegial working approach to project development.

The individual sessions were loosely structured around several key notions. These included the metaphor of 'research as journey'², the characteristics of educational research (Anderson, 1995), the four levels of research (Anderson, 1995), basic concept development (Sillitoe, 1994), the link between methodology and epistemology (Novak & Gowin, 1984), and the newly emerging concern with ethical considerations in human research (AARE, 1994). In addition to philosophical discussions around these themes, the program gave students the pragmatic experience of defending their work-in-progress to supportive peers.

In summary, the intervention was designed to foster the development and growth of a collegial, intellectually stimulating and mutually supportive atmosphere in which research students could experience the essential features of postgraduate study found in older universities with long histories of research activity.

THE EVALUATION

The Purposes of the Investigation

A formal, systematic study of the outcomes for participants in the weekly discussion seminars was undertaken so that the organiser could gain insight into:

- (i) whether the seminars fulfilled their intended functions of fostering a research culture and of assisting individuals to make progress with their studies, and if so, in what ways and to what extent;
- (ii) what were the shortcomings in the current approach and what actions could lead to improvements; and
- (iii) what additional activities the participants would recommend be incorporated into the program in the future.

The findings served two functions. First, in a practical way, they provided the organiser with a basis for making informed decisions about future directions for the program, and second, they provided the organiser and others with some insight into teaching/learning processes which can be effective in assisting students from non—traditional backgrounds to achieve success in postgraduate research studies.

Strategies for Evaluation

Two principal strategies were used to collect data. One was participant observation (Spradley, 1980) and the other individual, in-depth, face-to-face interviews (Minichiello et al., 1995) with selected discussion group participants. The participant observation aspect was conducted during Semester II, 1996. An independent evaluator attended the weekly discussion seminars and made detailed notes of the physical setting, individuals' actions, the processes of group interaction and the content of the discussions. When opportunities arose, brief informal interviews were conducted before and after the weekly seminars. The participant-observer experience not only yielded data in its own right but also provided valuable background knowledge for (i) making decisions about the selection of participants for individual interviews and (ii) conducting informed interviews which explored in detail each interviewees' unique experience of attendance at the weekly seminars. The individual interviews, which were semi-structured, were conducted in Semester I, 1997 and lasted between 45 minutes and one hour and 15 minutes.³

To ensure that a range of views consistent with the diversity of the group membership could be aired, a random purposeful sampling technique (Kurzel, 1992) was employed to select the 12 interviewees. The first consideration in the selection of interviewees from the total population of 42 was their *primary occupation*. For this there were three categories: staff, students and staff who were engaged themselves in postgraduate research study. Subgroups then were identified within each of these categories. For example, staff formed subgroups based on their role (academic or administrative; supervisor or not), employing institution (VUT or other), and so on. Students' subgroups, which of course often overlapped, were based on characteristics such as language background (English or other); learning disabled (eg. dyslexic); type of degree (Masters or PhD); extent of progress (pre- or post candidature); nature of enrolment (full- or part-time); and country of residence (Australia or other). Participants who attended regularly and those who attended irregularly were represented in the sample. Figure 1 below indicates the general profile of those interviewed.

Interviewee	Primary	occupation	Type of	degree	Time	fraction	Extent of	progress *
	staff*	student	Master	PhD	F/T	P/T	precan.	postcan.
1		yes	yes		yes			yes
2	admin							
3		yes	yes			yes	yes	
4	academ.			yes		yes	yes	
5	academ.							
6		yes	yes			yes	yes	
7	academ.							
8		yes	yes			yes		yes
9	admin.			yes		yes		yes
10		yes	yes		yes			yes
11		yes		yes	yes			yes
12		yes		yes	yes		yes	

FINDINGS

By far the majority of the interviewees in all categories expressed the view that the program was the single factor in their postgraduate study or professional experience that gave them a sense of belonging to an intellectual community with shared aims, standards, codes of conduct and patterns of behaviour. Two responses to the first interview question, *What did being part of the research discussion group mean to you?* illustrate this “More than anything else it gave me an opportunity to feel part of the Department in which I was enrolled” (Administrative staff member enrolled part-time in PhD, postcandidature), and

The discussion group inducted me or oriented me to postgraduate life in a university. I know of other Departments which have a lot of research students but they never seem to meet each other. They seem to be going through a solo process of working on their projects with some contact with their supervisors, but they work more or less on their own. The discussion group made me feel I belonged to the University and to the Department I was studying in. (Full-time Masters student, postcandidature)

That the participants shared aims, standards, codes of conduct and patterns of behaviour in keeping with that of an intellectual community, and that the interviewees attributed this to membership of the group, was expressed many times and in numerous ways during the interviews. For example, in relation to aims and standards, one commented “I remember the meeting when I realised the importance of submitting a well prepared candidature proposal. I realised its [ie the candidature proposal’s] place in the regime of things...a good proposal was the best foundation for a good project and a good result” (Part-time Masters student, precandidature).

In relation to codes of conduct, another participant noted “I learnt about things that needed to be taken seriously, like with data collection, you have to be careful about the quality of your data, you have to think carefully about when to gather it and how to verify it” (Full-time PhD student, precandidature).

As for shared patterns of behaviour, one example was that all of the participants, with the exception of the administrative staff member who was not engaged in study, took heed of the suggestion that a research journal be kept. One interviewee noted

Everyone had a red book and made notes of what went on in meetings, how we felt about our research, useful contacts, useful references ... anything and everything to do with our study. I would not have thought of keeping a journal if it hadn’t been suggested. I learnt from the others the sorts of things worth recording for future reference. (Full-time Masters student, postcandidature)

Most found that the group satisfied a strong need they felt for interaction with others as they grappled with both the intellectual and emotional demands of higher degree studies. Typical of the comments made in relation to the value of the group to individuals’ intellectual development was “There was a lot of talent in the meetings; I learnt a great deal from others. I’d think about their work and it would sharpen my thinking about my own. It helped me to sort out a lot of things” (Part-time Masters student, precandidature), and “It gave me social contact with other research students. The conversations we had were interesting and intellectually stimulating” (Administrative member of staff enrolled part-time in PhD, postcandidature).

Both staff and students commented on the effect of participation in the discussion group on their emotional well being. One academic staff participant reported “I absolutely enjoyed the meetings; I’d come away feeling warm and fuzzy”, while one of the participants contrasted how she felt emotionally before attending the meetings with how she felt after attending “Before joining the group I often felt frustrated, lost and inadequate. Sometimes I wept and gnashed my teeth. After joining the group I became more balanced. I received a lot of comfort from the group. I needed the contact” (Academic staff member enrolled part-time in PhD, precandidature).

One participant described the significance of the group for him as a beginning researcher seeking support with both intellectual and emotional issues with

I hadn’t been involved in a research degree before so it [ie the discussion group] was everything to me. I wanted to find out from others what I’d got involved in. Initially I thought doing a research project was like writing a big essay. When I realised that it was a much more complex task I felt daunted. I was curious about what I would be required to do and how I could expect to feel about it. I was really desperate to talk to someone discovering the group was like a Godsend. (Full-time Masters student, precandidature)

One student linked the effect of the emotional support to his progress in this way

I often arrived [at meetings] feeling a bit down from things that had happened in the day. Sometimes things were tough at work and as a consequence I would focus on the negatives and think that my project was going nowhere. Then I’d spend two hours just concentrating on processes and strategies related to research, things like storing data, keeping a journal, doing concept maps etcetera...it was very useful, it was very restorative. I felt privileged to be there. We were encouraged to see research as a fun but a serious activity. Always, I would feel better when I left. I felt motivated to keep going with it [ie the research]. (Part-time PhD student, precandidature)

Many expressed their appreciation of the opportunities the seminars provided for mutual support to occur, and it was clear that assisting others was as valued as receiving assistance oneself. One student reported what it meant to him to be both the recipient and the giver of support, noting

When I spoke about my research, people sought clarification on issues; that was invaluable. The collected cleverness of the group helped me to focus my study. It must be one of the most useful things I have done...Then, when someone else was discussing their topic I would try to make a comment that would help them in some way—something that would start them thinking about a particular aspect of their work. Giving people support is important. It was very collegial. I was interested in what others were doing and was

pleased to contribute in what ever way I could. (Full-time PhD student, postcandidature)

In most cases, the weekly seminars were the participants' sole channel for accessing network opportunities. Comments such as "the seminar meetings were the only times I mixed on a regular basis with others who were interested in research" (academic staff member) and "the meetings provided my only point of contact with other students" (Part-time Master student, precandidature) were typical of the way staff and student interviewees described their interactions within the University community. Interestingly, the group dynamics were such that the members did not confine their interest in others' work and support of others' projects to the two-hour discussion time. Indeed, it was observed that once participants became aware of the various research interests in the group, they spontaneously assumed shared responsibility for being alert for information that could be useful to other investigations. Students and staff supported others' research by passing on written materials such as newspaper articles, journal publications, and chapters from texts; contact names and numbers of others with similar research interests; and, information about conferences and public lectures. One interviewee shared her thoughts on this aspect of the group's interactions

I would think "Now how can I help this person with this topic?" Even though it wasn't my topic it didn't mean that I wasn't interested. During the week if I found information on what others were doing I'd pass it on. Everyone did it. Articles were passed on to me and I was told about conferences related to my work. (Academic staff member enrolled part-time in PhD, precandidature)

Outside meeting times, several of the students also shared written copies of their work-in-progress. For example, when describing the extent of collegiality one student noted "Other students agreed to read my candidature proposal and make comments and I did the same for them. I also asked for feedback from other students as I drafted my chapters" (Full-time Masters student, postcandidature) Observation of the students sharing and supporting each other prompted one member of staff to comment "People were very generous with what they would give out, with what they would share, and with their time" (Administrative staff member).

There was little evidence that the participants only wanted to 'grandstand' their own achievements; rather, most displayed genuine interest in helping others in whatever way they could. This situation prompted one interviewee to comment "Everyone was very helpful to each other, there was no competitiveness in the group, which frankly, initially I found pretty surprising" (Part-time Masters student, precandidature).

The weekly seminars usually began with the dissemination of information on a wide range of issues relevant to postgraduate study, such as updates on obtaining

ethics approval; changes to requirements in candidature applications; and, dates and venues for guest speakers, workshops, scholarship opportunities, and conferences. Most interviewees described these segments as invaluable. Many thought that they probably would have missed seeing the documentation altogether or missed their significance if they were not discussed during the seminars. One student remarked that having announcements made at seminars enabled the participants to ask basic, but pertinent, questions regarding what was meant by particular announcements beyond what was overtly stated in a flier or brochure. For example, most of the students were unsure of what to expect if they attended an academic conference. This uncertainty prompted one to tentatively enquire, “If I go to this conference and present a paper will I be expected to speak at a lectern, in a huge auditorium to an audience of thousands?” (Full-time Masters student, postcandidature)

A view which was strongly expressed by students and academic staff was that exposure to detailed discussions on philosophical concerns, methodological issues and a wide range of research topics was significant in preparing them for the roles of supervisors and examiners. Most students felt that if they had focussed solely on their own work they would have been poorly equipped for such responsibilities which are usually assumed to be within a postgraduates’ repertoire of skills. Several academic staff who held postgraduate qualifications and were already supervising and examining theses, felt that the discussion group provided a valuable opportunity for “professional development” (Academic staff member) because, for the first time, they were being exposed to a range of ways of conducting research. One staff member explained how the experience of being in the discussion group assisted her in the role of supervisor in this way

I saw a lot of students doing a lot of different things at various times as they progressed. It was useful to see how their minds worked, particularly as they tried to find the solutions to problems, and how they dealt with critical comments from others. It helped me to frame my dialogue with my students when I met with them individually. (Academic staff member)

Another member of staff, who was involved in the examination of Masters theses and who herself was studying for a PhD commented “I gained a lot of insight into different methods that are available to qualitative researchers; I now feel better prepared to give a fairer assessment of a thesis that isn’t a replica of my own” (Academic staff member enrolled in PhD, precandidature).

Ways in which the Discussion Group Contributed to Individuals Making Progress with their Studies

With one exception, all of the students who were interviewed indicated that, prior to attendance at regular meetings, they felt isolated in their studies and unsure of their capacities to complete their research. Through regular attendance and exposure to discussions of others’ work they claimed that they developed a

confidence that with wide reading, focussed discussions and time, they too could overcome the intellectual and conceptual challenges they were facing in their own work. Typical of the comments that were made in this regard was that of a student who said “I was alone and uncertain [ie before joining the group]. The group quickly gave me a lot of confidence about being able to do my own research project. I felt all of the others were just ordinary people and so things were demystified a great deal” (Part-time Masters student, precandidature) and two others, one of whom said

Starting out on research was overwhelming. I’d never done it before and I didn’t know what to expect. As a research student I felt lonely. If you think about it, most undergraduate students study together and course work students also have interaction. Being part of the group helped to increase my confidence. Through exposure to others’ work I started to believe I could do it. I could see that if I took it in steps I could do it. I didn’t have to write 40 to 60 thousand words in one hit. I feel that a person who is not exposed to a group like that is disadvantaged. (Full-time Masters student, precandidature)

and the other who stated

I found the most useful thing was hearing people’s ideas for research projects and helping them to improve these by working them over and then looking at alternatives. That was extremely valuable because when I was in the process of putting my ideas together I constantly visualised that event [ie receiving critical comment from the group] and that helped me along. I thought about what they might want clarified, justified, exemplified—and made an effort to address these things before I spoke about them. (Full-time Masters student, postcandidature)

A candidature proposal for approval by a Faculty Research and Postgraduate Studies Committee is the first major formal document required of research students and becomes a significant *rite of passage*. Many pre-candidature students elected to present to the group for critical comment an account of their work-in-progress. Such sessions, it was reported, were invaluable for both the presenters and the audience. Interviewees claimed that preparing for their presentations helped them to marshal and focus their ideas, and organise and articulate their thinking. The experience of verbalising and defending their propositions at the seminar where the atmosphere was non-threatening and supportive was seen as important in their preparation for a possible verbal defence of their proposal at the Committee meeting. As for the role of critical friend, interviewees reported that commenting on others’ work helped them to appreciate their own accumulation of knowledge on research principles and practices, and helped them to reach conclusions about appropriate directions for their own work. Considering and commenting upon others’ work helped those at a more advanced stage to consolidate their learning-to-date. One interviewee spoke about what the

experience of presenting her candidature proposal to the group meant to her in detail

Having the opportunity to present to the group meant clarifying and putting into words what I wanted to do and that a very difficult. You can have something in your mind then when you try to put it down on paper to speak about in a coherent way so that others can understand it, it's actually very challenging. It [ie the opportunity to present one's proposal to the group for discussion] gave a forum for people to bring out their ideas and then have others ask questions about it. The questions I was asked were valid. It was constructive criticism. People asked why I was using a particular model for my study and not another one. That made me think about where I was coming from. I had to go back to grass roots and ask myself some basic questions. People also gave suggestions and I think that was good. I'd evaluate their ideas when I got home and think about how I could improve what I was doing. (Academic staff member enrolled in PhD, precandidature)

Several participants commented on the friendly atmosphere at the meetings and how relaxed they felt about exposing details of their studies to the group and disclosing their feelings of uncertainty about various aspects. Many attributed their preparedness to discuss their work publicly, to the ambience of the meetings. For example

I felt very comfortable talking to this particular group, I think very one had the respect of everyone else. I got the feeling everyone who attended the group felt very comfortable going in there and discussing things at all levels, minor things and things that were complex. The setting was relaxed and comfortable, people weren't threatened, it was like coming in for a friendly chat more than anything else, yet it was never a waste of time or boring. I always got something out of each meeting because there was always something different going on. (Part-time Masters student, precandidature)

and

I watched others present before presenting myself and I could see that it was a collegiate forum and that the group wasn't going to knock what I was doing. It was a very cooperative atmosphere and so I didn't feel overwhelmed by the idea of presenting. It was more like presenting to friends really. (Full-time Masters student, postcandidature)

One interviewee made the point that much of the literature on framing and conducting a study would have been beyond her comprehension as a beginning researcher given its use of unfamiliar research-related concepts and specialised terms. During group discussions of such literature, careful scrutiny of the text and definition of terms resulted in her not only reaching an understanding of a particular article or chapter, but also helped to prepare her for wider independent

reading “Because of my [learning] disability I found the amount of reading required drained me physically and mentally. It was the amount and the complexity of it. The discussions helped me to cope better with this aspect of postgraduate studies.” (Part-time Masters student, precandidature)

Associated with this notion of gaining access to information through knowledge of the discourse which is used to express concepts and ideas related to research, is the ability to articulate both verbally and in writing one’s research concerns and activities. The interactive nature of the seminars was reported to be essential in developing students’ abilities to explain clearly what their studies involved. Native speakers and students from non-English speaking backgrounds claimed to have benefited in this way from participation. One student reported “the more I explained the project the better I got at explaining it. If I was stuck for words during the discussion the others would prompt me.” (Part-time Masters student, precandidature)

Shortcomings and Suggestions

Whilst there was unanimous agreement that the group should operate flexibly and allow individuals to move in and out according to their needs, interests and availability, one participant felt that valuable networking opportunities were lost because members were not fully aware of who comprised the group, apart from the core of regular attendees, nor what was the complete range of research interests and activities within the group. The interviewee suggested that a noticeboard display of members’ photographs with accompanying paragraphs which briefly described their fields of study would be useful.

Similarly, all of the participants expressed a positive attitude to the flexible structure of the program which meant that there was no pre-determined, timetabled syllabus. Instead, issues were dealt with at times when they were relevant to members’ needs. Whilst the participants appreciated this student-centred approach and were conscious of the notion of the “teachable moment” (Dewey, 1943) it was suggested that it would be useful if a document were available which articulated the broad aims of the program and the general topics which the discussions would address.

One student noted that while she valued that there was the opportunity to peruse candidature proposals which had been approved by the Faculty Research and Graduate Studies Committee in her own time, she would like the group to spend some time discussing the merits and weaknesses of these. She believed that such discussions would help to highlight the standard to which individuals in the process of candidature preparation should be aiming. Such discussions, she argued, would contribute to a “healthy ongoing quest for greater quality in postgraduate research in the Department.” (Academic staff member enrolled in PhD, precandidature)

Although most people interviewed found the seminar time, (4-6 pm each Wednesday) to be ideal, two expressed a different view. One part-time student noted that the time often clashed with work commitments and as a consequence he attended less regularly than he would have liked. A female member of staff believed that the late afternoon timing was especially unsuitable for female students with family responsibilities, and felt that more women would have participated had the seminars been conducted earlier in the day.

Suggestions for Future Directions and Activities

For the most part, those interviewed strongly recommended that no changes be made to the approach being used. Most believed that the program could not realistically be expected to achieve more and expressed concern that any changes could upset the existing dynamics and have detrimental effects. Some useful suggestions for changes, however, were made.

For example, one participant, who was member of staff engaged in study, suggested that interested students be offered the chance to conduct a small, team-based research project under the guidance of the group organiser, whilst another staff member suggested that more time could be devoted to discussing quantitative approaches. A full-time Masters student suggested that it would be valuable to spend some time looking at examples of examiners' reports and reflecting on the significance and implications of these for a student who may be faced with a range of options as to what to do next, including the requirement to rework and resubmit, prepare a condensed version for publication and, or pursue further studies.

With regard to the findings overall, the interviews revealed that apart from differences related to progress through a research topic there were no great discrepancies between the accounts of the effects of participation in the discussion group for the respondents, whether they were staff, students or staff who themselves were engaged in studies. This is perhaps explained by there being a generally shared perception that there was a lack of hierarchy in the group, with all participants indicating that their interest in attending the weekly meetings arose from an intellectual and pragmatic need to better understand 'this thing called research'.

RESPONSES TO FINDINGS

As a result of this evaluation, a number of modifications to the presentation and content of the discussion seminars occurred. First, a list of the aims of the seminar program, together with an overview document noting the discussion topics, was prepared. Distribution of this material has received good informal feedback from the current participants.

Second, the seminar time was moved to Friday morning. While this has had the effect of allowing more participation by students with young children, the overall advantage of the time shift is uncertain. For example, students from other campuses of VUT and from other Universities find this time more difficult to accommodate in their time table. One unanticipated advantage of this time has emerged, nevertheless, in that participants have reported that they are more mentally alert during the earlier time spot, and it is planned that another semester of this timing will be trialed.

Third, late in 1997, two small group-based projects were initiated; one involves the production of a book of experiences in getting started in research, and the other a participant-observation project which explores *conference cultures*. The participants have engaged enthusiastically in these projects, and it is anticipated that joint publications will emerge from the two initiatives in late 1998.

The suggestion that discussions be expanded to include detailed discussions of quantitative analysis is still under consideration. Given that the group was established to provide support primarily to students interested in qualitative approaches, adoption of this proposal would mean a significant shift in the content of the discussions. If this suggestion were to be acted upon, careful handling would be required to ensure that the discussions did not lose their relevance for the rest of the group and that the depth of the discussions which typically occurred around qualitative issues was not sacrificed. At this stage a descriptive account of quantitative research has been provided in the context of a comparison of the sampling techniques involved in the two paradigms.

With regard to the suggestion of a noticeboard display of photographs, whilst the authors believed this to be an excellent idea, the difficulties finding a dedicated research student area has meant that this suggestion has not yet been acted upon.

CONCLUSION

The findings of the evaluation and the authors' continuing involvement with the participants indicate that prior to the establishment of the discussion seminar, there was a lack of infrastructure support for research students in a number of fields of study. The discussion group was significant in providing a more collegial research environment. In addition to the participants suggesting that the discussion group filled a social hiatus, they also expressed much satisfaction with the content of the discussions, and indicated that there was a general feeling amongst students that, by attending the group, they were significantly assisted in making progress with their studies and in appreciating the differences between undergraduate and postgraduate life at a university .

With respect to the evaluation of the research discussion group, many students expressed appreciation, informally, at having been able to view the process of participant observation and in-depth face-to-face interviews at close range whilst

the evaluation was being conducted. There was agreement that the small team-based research project will provide a useful mechanism for capitalising on what all participants perceived as the unique benefits of interaction between postgraduate researchers of diverse academic and cultural backgrounds. This response indicates the value and applicability of experienced based learning (Kolb, 1984), even at this higher level of education.

NOTES

1. The rapid changes in the higher education sector have necessitated significant reconceptualisation of the nature of a university education. There is no negative criticism of staff or students intended in this work, nor should such criticisms be inferred. With time, and careful evaluation, those practices which should endure will become clear.
2. *Setting out on the voyage to Ithaka*
You must pray that the way be long,
Full of adventures and experiences. (Cavafy, 1951)
3. Interested readers are invited to contact the authors for further details regarding the semi-structured interview schedule.

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