

## Module 3

# **Women and Research**

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## About this module

This research module argues that research and leadership in higher education are closely connected, and that research prowess is important not only for its intrinsic values of stimulation, excitement and satisfaction, but also for career progress. The module has a dual audience: first, the senior academic who is responsible for fostering a climate conducive to research, and for enhancing the research potential, activities and outputs of academics. For this group in particular, the writer canvasses some of the initiatives undertaken in different countries to promote research, and provides a possible agenda for action to promote research at the department, institution, national and international levels. Second, the module provides a well-sequenced and detailed programme of 10 workshop sessions and materials that can be used to develop staff members' capacity to undertake research, plan a research project, work collaboratively as part of a research team, and write and publish. Sessions on qualitative and quantitative research, supervising research students, and guidance about how to develop a research ethos in an organisation and how research policy and practice may be influenced are included. There is a considerable amount of additional resource material from role perception questionnaires to a Code of Conduct for Responsible Practice of Research.

## Author's acknowledgements

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## Section I Introduction

This module is divided into three sections and addresses two target groups. Senior managers are the target group for Section 1. Senior managers of our higher education institutions have a most important role in facilitating and legitimising change. Their support can empower those who are responsible for the professional development of the faculty and the developers, facilitators and trainers themselves. Section 1 provides an action agenda for senior managers in higher education institutions and then follows with a broad background and rationale.

The background and rationale are important background reading for the developers, facilitators and trainers.

Section 2 is directed toward the facilitators. Here the training programme is explained and the requirements of facilitators are discussed.

Section 3 provides the facilitators/trainers with the programme of workshops in the form of workshop outlines, and Section 4 provides overhead transparencies and other materials.

The beneficiaries of this module, the indirect target group, are women researchers in higher education institutions who are starting or trying to enhance their research efforts and careers. Many of the materials in Section 4 are for these women, to be distributed in workshops as worksheets, background reading or follow-up reading.

Section 1 is addressed to (a) senior managers in higher education institutions; (b) those responsible for the professional development of faculty; and (c) the developers, facilitators and trainers themselves.

We mount an argument here that:

- research and leadership in higher education institutions are closely connected;
- faculties gain power and status, as well as financial advantage and more autonomy, through an active research programme, particularly when it is externally funded;
- research empowers women in their academic life; and
- research prowess enables women to take their share of professorial positions and, if they wish, to gain access from there to managerial positions.

### 1.1 A possible agenda for action for senior managers

Senior academic managers and professional administrators have a key role in the development of all human resources in their institutions. This means they have a key role in professional development of all staff. We will concentrate here on possible action for developing women's role in research. In the workshop programme outlined in Sections 2 and 3, opportunities and strategies will be identified by the workshop participants. Senior management can be proactive in their recognition that much can be done to involve women more productively. The following suggestions aim to address equity issues (equal access and power, status and resources) and to enable women to develop their full potential as researchers. There is a professional development perspective but also a human resource development perspective. For any institution, it makes sense to enhance the research potential and contribution of all its members.

### **(a) Action at departmental level**

In any institution, the academic home of faculty is the department (or school – we will use ‘department’ as the basic academic organisational unit). Hence opportunities, development, funding, research climate and research support all first need to be addressed at departmental level. There are a number of aims for senior management and department heads to achieve, and for each, one or more possible strategies are listed. Neither aims nor strategies listed are exhaustive. They serve to remind us that at any level within institutions, within any culture, there are ways of optimising institutional and personal objectives.

#### ***Aim***

The institution will have an inclusive research culture, i.e. a culture that includes women, their research concerns and their research paradigms.

#### ***Strategies***

- Discuss the issues, and work through the head of department or professors, appealing to their leadership responsibilities.
- Sponsor departmental retreats to address issues.

#### ***Aim***

The institution will accept and enhance women’s research potential.

#### ***Strategies***

- Ensure that women are included in research centres.
- Introduce support schemes where women (and men) mentor women colleagues.
- Include all part-time faculty in departmental affairs including staff development.
- Encourage collaborative research.
- Ensure that faculties/departments conduct goal-setting and review exercises.
- Encourage faculties/departments to establish a regular seminar series for faculty and research students.

### **(b) Action at institutional level**

Departments and individuals operate within an institutional context. University policies and university funding practices, espoused, valued and perceived priorities have direct impact on departmental practices. Senior management shapes institutional policies, practices and culture, and can shape these to empower women.

#### ***Aim***

The university will value and enhance women’s contribution to research.

#### ***Strategies***

- Develop a university research management plan which explicitly addresses the points below.
- Provide academic leadership training for heads of departments with special emphasis on gender issues.



**Aim**

Women will be represented on Research Committees, Higher Degrees Committees, Academic Board/Senate (i.e. the academic decision-making bodies within a university which deal with research and research training).

**Strategies**

- Establish a register of women suitable to be appointed/elected to relevant committees.
- Nominate women or encourage suitable women to apply for committee membership, wherever appropriate.
- Organise training sessions on effective committee work.

**Aim**

The university will develop study leave conditions favourable to women.

**Strategies**

- If no study leave exists, negotiate/lobby for study leave to enable a concentrated period of research/writing and/or working on a higher degree.
- If there is a study leave provision, but work towards a higher degree is not allowed during that time, rewrite study leave rules to enable women to work on a research degree.

**Aim**

The university will have research centres and networks that include women.

**Strategies**

- Develop policies that foster women's inclusion in research centres, e.g. by monitoring membership, associate membership, provisions for research development of women colleagues.
- Provide conference funding to enable women to get feedback on their work or to meet colleagues and participate in the wider community of scholars and professionals. Provide or seek funding for networks which support and stimulate women's research.

**Aim**

Deans and heads of department accept their professional development/academic leadership role.

**Strategies**

- Offer training workshops for heads and deans. Sponsor departmental retreats on research development.

**Aim**

To develop the research expertise of junior staff and increase the research opportunities for women.

**Strategies**

- Conduct analysis of needs of women researchers.
- Offer introductory research grants.
- Offer workshops on applying for research grants.
- Offer workshops on time and project management.
- Offer workshops on supervision of research students.

- Offer workshops on writing for publications in different media.
- Provide/subsidise childcare if needed.
- Encourage collaborative research through funding schemes.

### **(c) Action on the national scene**

Senior administrators are part of the network of national higher education administrators. Their influence extends to research-granting bodies, to scholarly journals and to the media. Hence, here too, senior administrators can be proactive.

#### ***Aim***

To ensure that women have a proportional membership of national bodies which have influence in setting priorities for research agendas and/or in funding research.

#### ***Strategies***

- Nominate women.
- Monitor the representation of women in national bodies, etc.
- If representation is lower than acceptable, indicate this to the media.
- Network and lobby decision makers.

#### ***Aim***

To ensure women have a proportional representation on editorial boards of scholarly journals.

#### ***Strategies***

- Nominate more women to editorial boards.
- Nominate more women to executive positions in scholarly associations.

#### ***Aim***

To ensure there is proportional coverage of women's research in the media.

#### ***Strategies***

- Work through university public relations office(rs).
- Network with science/education officers of major newspapers.

### **(d) Action on the international scene**

Many of the senior managers are well connected internationally – through international associations, through their own research and their networks as senior managers. It is in both the national and institutional interest that capable women are well represented internationally, and are given opportunities in an international context.

#### ***Aim***

Women have a proportional representation in bodies which have influence in setting priorities for research agendas and/or in funding research.

#### ***Strategies***

- Nominate women.
- Monitor the representation of women in international bodies etc.
- If that representation is lower than acceptable, indicate this to the media.
- Network and lobby decision makers.

**Aim**

Women can use the opportunities for taking up international scholarships and engaging in donor-funded research.

**Strategies**

- Lobby donor agencies to allow scholarship holders to take their family along.
- Educate donor agencies on women's research agendas and the full range of acceptable methodologies, including qualitative research.

The following sections provide a background and a rationale for the recommendations above.

**1.2 The place of research in universities**

The organisation of research differs from country to country. Research activities may be located in universities, academies, industry, government departments and other public sector organisations. This module will focus only on higher education, not on other research organisations.

In many countries there is some differentiation within the higher education system, with universities having a teaching/research role, and other institutions a teaching only role. These institutions may not be called 'universities' but are recognised as part of the higher education system within some countries, while in others they may be part of post-secondary but not higher education.

Generally, the primary functions of universities are seen to be teaching, research and scholarship, and administration, now generally replaced by service. In many countries the primary funding to universities is based on the student load, i.e. it is related to the teaching function. This funding pays for the teaching staff (faculty), for teaching rooms and infrastructure. Service activities are seen as an extension of academic activities and are generally not funded by the public purse (or private funding organisations).

Research is funded in many different ways: institutions receive funds from government for research to be distributed internally at their discretion; individuals apply for research funds to government agencies, e.g. research granting schemes; research groups apply for funding under special grants; or research groups, institutions or government apply to donor organisations for funding.

None of the arrangements is static. Indeed, in most countries the funding of higher education, and in particular of research, is a contentious issue. Research is seen as closely associated with economic development. Hence the amount of funds available, and the ability to set one's own research agenda (in contrast to one set by funding councils or donor agencies) is closely linked to striving for autonomy by individual researchers, institutions and nations.

Let us look at Australia as an example of changing practices and attitudes. In Australia, until the demise of the binary line in 1988, there existed for nearly 25 years two sectors of higher education: the university sector with an explicit brief and enough funding to conduct research, and the CAE sector which comprised the colleges of advanced education and institutes of technology. This CAE sector was established to provide cheaper education for an increasing number of students enrolled in vocational courses. They were taught by academic staff who were neither funded nor expected to conduct research, and often did not have research

training. Instead, they had professional expertise and experience. If these faculty conducted research, and eventually it was conceded that they might conduct applied research, they did so in addition to heavy teaching loads, often with industry funding. Thus, we had two institution types with different functions, differently qualified faculty, and different internal organisation.

There was, however, convergence between the two sectors, and for a variety of reasons, in 1988 the binary system of higher education was abolished. A Unified National System was created – all institutions of higher education could aspire to becoming a ‘university’. The nominal distinction in function was lost.

But the ex-colleges or institutes of technology did not get research funding the way the universities used to. Instead the government ‘clawed back’ funds from the universities and made them available on a competitive basis to individuals and institutions through a variety of granting schemes. Although the so-called pre-1987 universities retained research infrastructure funding as part of their operating grant, the competition from the new universities was felt. In the years since, success in gaining grants from competitive research grant schemes has come to be virtually synonymous with the ‘quality’ of the institution (Murphy, 1995).

This was exacerbated by quality assurance reviews (1993–95). Even before the Committee for Quality Assurance in Higher Education placed institutions in bands (and these bands reflected to a large extent research prowess of the institutions), there were league lists in the media based on success in gaining research grants.

The reform of higher education brought with it an explicit valuing of research, in particular of research that was seen to benefit the economic growth and vitality of the nation. Hence, strategic research, basic applied research, and collaborative (with industry) research centres were promoted and funded by the government. Institutions, research centres and individuals gained large sums of money and commensurate external and internal power and influence. The power of the individual successful grant applicant will increase even more with a new formula for the calculation of the research quantum, part of the operating grant to institutions based on a number of input and output performance indicators.

Most of this economically valued research is carried out in male disciplinary areas and by men. Hence, the women’s position may decline even further unless strategies are developed to enable women to contribute to the still male-dominated disciplines, and to increase the status and perceived social and economic benefits of research in which women predominate and/or excel.

Within universities, research is supported through an organisational infrastructure which may include a research office which helps to prepare grant applications and administer research grants obtained. Such infrastructure may also include special equipment and facilities, funds for research personnel and students. A research committee may provide the institutional framework for policies.

Women need to recognise that research, research policy and research funding are highly political concepts, and strategies reflect dominant ideas if not ideologies. There are status hierarchies of disciplines, accepted paradigms, and ‘respectable’ methodologies. Women who research in new disciplines, and use ‘soft’ or qualitative methodologies, be they action

research, case-studies or others, are subject to dismissive evaluations and refusal of funds. They might find it hard to publish in the well-established national or international journals which tend to have conservative gatekeepers.

In Section 1.1 'A possible agenda for action for senior managers', women's membership on committees and boards is stressed. Unless there is a disciplinary mix represented in the membership of committees, it is likely that a science-based model of a linear academic career influences policies and funding. Women, who tend to be in the humanities, social sciences and some of the health sciences, need to be represented in committees.

### **1.3 The place of research in one's own career**

As noted, most countries have a differentiated higher education system with institutions that specialise in professional training and education, in general education, and in research. Nomenclature varies, but one may generally say that it is possible to have an academic career which is based on teaching, provided one stays within teaching-oriented institutions. And in many countries most of the students and the faculty are in teaching institutions.

The debate in many countries about the low status of teaching, and the need to value teaching, only confirms how important research credentials have become in individual academic careers. While teaching and teaching reputation are private, research and research reputation bestow peer recognition within the disciplinary field, both nationally and internationally. It is the passport to positions elsewhere (and mobility is a factor in advancement, an issue women and university managers need to address), and it is the primary qualification for advancement within one's own university.

In many higher education institutions which are not primarily research institutions but aspire to university status, new graduates or graduates with some professional experience can enter academic careers. However, unless they obtain research qualifications and a research record they lock themselves out of advancement.

If women want this advancement, and if we want women to realise their potential, then we must make sure that women go on to do research degrees after they have finished their undergraduate studies. This may mean we need to make provisions for enrolment in and support for research degree studies after a break for child-rearing and/or professional experience, and to make provisions for women already in academic positions to gain higher degree qualifications.

These qualifications will provide women with training so that they can identify research questions, evaluate appropriate methodologies to address these questions, do fieldwork, library research or other data collection, and write succinctly and persuasively. They should learn all these skills with guidance and feedback from their supervisor. Ideally, their supervisor is also a mentor, who introduces the women research students to the network of scholars working in the same or similar fields. This prepares them to be independent researchers who can then apply for research grants using the same skills.

Research qualifications also enable women to supervise graduate students, one of the academic activities which span teaching and research and which is highly valued by faculty and administrators.

These are all very extrinsic reasons for pursuing research. However, for many women and men, research is an intrinsically valued activity.

- Curiosity-driven research stimulates and excites; it is highly satisfying.
- Being able to contribute to knowledge and to understanding, being part of a community of scholars, locally, nationally and internationally, is an exciting incentive and reward.
- Similarly, successful applied research which contributes to solve social, industrial or economic problems and contributes to advances in the society in which we live, is most satisfying. Women, by talking to specialist audiences or the public about their research, can contribute significantly to public education and debate.
- For many academics, conducting research is also a form of self-development: they stay intellectually alive, stay at the cutting edge of research through their reading, and though their own research results may not be earth shattering, they are the better teachers and colleagues for it. Thus, women, even in teaching institutions, will benefit from their own research efforts.

If women want to go down the research track, then the demands on them are considerable. Usually research is done in addition to a normal teaching load. Only some external research grants allow for buying out from teaching. There was, for a long time, an assumption that the pattern prevalent among male disciplines and male academics was 'normal', e.g. the academic career was linear. Successful scientists had gone to university to do their undergraduate degree straight from school, then their doctorate, followed by a post-doctoral position, and then had moved on to a tenure track position. This may still be the norm in some disciplines, and it is noticeable that women scientists conform to this picture more so than their sisters in the humanities and social sciences or the health sciences.

The entry points to an academic career and the preparation for an academic career vary between disciplines and institution types. There is often now recognition that women may need 'time out' for child-bearing and child-raising, and that an interruption to an academic career or a slow-down is not indicative of ability or commitment. But this is harder to maintain for women in the natural sciences than in the social sciences as knowledge and skills seem to date faster.

## 1.4 Representation of women in higher education institutions

In many countries women account now for half or more than half of commencing students. Though there are still differences between disciplines, some of the erstwhile 'male' disciplines are becoming more balanced, and in prestigious professional courses like law and medicine, women have made significant inroads.

Women are less represented as PhD students, though female participation has been increasing steadily. It takes a decade to prepare for an academic career and we do not yet expect equal representation at all levels. However, there is now a pool of qualified women with PhD and research publications ready to be employed in higher education institutions and ready to launch themselves on an academic career. At present we are still presented with a profile of academic staff which, for women at least, is very pyramidal – there are very few senior women; and the bulk of the women are at the bottom of the institutional status hierarchy. This may be expected in some fields, but in others we would have expected by now

that women had moved up the academic ladder, in proportion to their representation at the lowest level. Movement is occurring but not at an even rate. Clearly then, there are systemic, socio-cultural and personal factors which prevent women from progressing.

First some statistics:

### **(a) Professors**

In UNESCO-Commonwealth Secretariat (1993) we read under the entry for Malaysia:

*culture may explain, at least in part, why women lack a burning ambition to rise to the top. One cannot categorically say that the Malay, Chinese or Indian women of Malaysia do not have the ambition to be at the top of the ladder in their professions just because it is in their culture to play second fiddle to the men. The scenario projected by the academics seems to show that culture has never been a constraint in their efforts to achieve their ultimate goal to be at the top. This can be attested by the rise of women academics in number, particularly of women associate professors, over the last few years. (p. 125)*

The percentage of women at associate professor level at the University of Malaya was 28 per cent in 1990/91, and they represented 14 per cent of professors.

This figure is higher than in most other countries, and we may want to find out why. Indeed, figures for another Malaysian university, Universiti Pertanian Malaysia, show a more typical pattern: in 1992 none of the professors was female, and only 25 or 18 per cent of the 141 associate professors were women (ibid: p. 126).

In Europe, too, women faculty find it hard to get to the top. In France, for example, just over 11 per cent of professors in law, letters, science and health were women, with an increase in women's participation the lower the position (ibid: p. 73). The same applies in Finland, where 10 per cent of professors are women, but 46 per cent are lecturers. This position is not the traditional entry into an academic career (ibid: p. 57).

In nine African universities listed, the lowest proportion of women professors is zero (in two universities), and the highest is 16 per cent – at the small Lagos State University – followed by 13 per cent at the much larger University of Ghana.

In Australia, in 1993, women represented 10.7 per cent of the professoriate (associate professor and professor), an increase from 9 per cent in 1990.

The case-study 'Women's access to management and technology in South Asia' indicates that in Sri Lanka, the 1996 data from six universities shows that there were 140 male professors and 18 women: a ratio of 1:7.8. At associate professor-level the ratio was 1:3.3.

There are cross-national similarities in the distribution of women across the disciplines. French data for example, noted that 8.5 per cent of science professors were women, whereas in the humanities, the proportion, at 22.8 per cent, was close to three times as large (UNESCO-Commonwealth Secretariat, 1993). This pattern seems to hold true across universities and countries. However, it must be noted that within a country, e.g. Australia, universities have very unequal representation of senior women. This very fact encourages us to believe that despite some decades of awareness, regulations and even legislation in many countries without very great inroads into gender inequalities, there are factors operating at the institutional level which favour men or women, or equal access to positions.

### (b) Senior managers

While academics participate in university management mainly through the collegial decision-making process, they are not line managers, unless they are deans.

In most countries, professors are the pool from which deans, pro- and deputy vice-chancellors (vice-presidents) and university presidents or vice-chancellors are chosen. Thus the very great under-representation of women in the professoriate spills over into the senior management positions with an even greater diminished presence of women.

In Indonesia in 1990, of 212 university presidents, four (1.9 per cent) were women; of 890 deans, 63 (7 per cent) were women (ibid: p. 113). In India, 9 of the 165 'university level' institutions have women vice-chancellors (5.8 per cent) (ibid: p. 83).

In the 12 universities in the Arab region, none had a woman president or vice-president and there were only four women among 80 deans!

In Australia in 1996, there were two women vice-chancellors among a group of 37. There are more women pro- and deputy vice-chancellors, but as a proportion of senior executives, women are a very small group indeed. In 1995, among the group of pro- or deputy vice-chancellors (research), the group of senior staff whose function it is to promote, enhance, and commercialise research, there were only a handful of women. (There are a few more women in academic portfolios – the 'softer' ones.)

Women are a small minority in the top academic positions which are, in universities at least, largely based on research achievement. In the senior management positions which can be appointments or elections, they are virtually invisible.

## 1.5 Women's attitudes to teaching and research

Why are there so few women at the top of the academic hierarchy? There are many reasons, and many myths.

One of the myths in higher education [that sounds but is not complimentary to women is: women are better teachers because they care more about students. Therefore they devote more time to teaching and do less research. Clearly then, their commitment to research is not as wholehearted as that of their male colleagues, and therefore they are less productive than their male colleagues.

There are a number of studies which look at the orientation to teaching and research of faculty staff. Hardly any distinguish between the orientation at different levels of appointment, or factor in level of appointment in a particular type of institution. The Carnegie Foundation's regular survey, for example, asks 'Do your interests lie primarily in research or in teaching?' and provides cross-tabulation by type of institution, gender, age, and department, but does not provide a separate breakdown for men and women. Hence, we know that overall, male faculty are more often interested in research than women (33 per cent vs. 22 per cent) (Carnegie Foundation, 1989). But as women are more prevalent in non-research institutions this figure is inconclusive.

In a teaching institution, e.g. a community college, one expects to find more faculty to be teaching-oriented than research-oriented; and the reverse would hold true for research universities (Moses, 1994).



Also, more women hold positions in teaching institutions than research universities. Women, as noted, are also more often represented in the lower levels of the academic hierarchy. Our own research shows that tenured lecturers (assistant professors, of whom a significant number are women) most often report good teaching practice and commitment to facilitating student learning. Hence, it is understandable that women get the reputation as good teachers. This, however, seems to be purely based on their visibility at this level. Teaching loads at this level are traditionally heavy. Attention to research and publishing requires an amount of effort and time for this group of faculty staff which many women will find hard to maintain, as the beginning of an academic career often coincides with child-bearing or child-rearing.

Our research also found that professors and readers (traditionally a research-oriented position) who are mainly men had published significantly more than other academic colleagues in the past five years, i.e. they remained productive at this level (Moses and Ramsden, 1992). Positions at this level usually carry a low teaching load, enabling those with a research record to devote more time to research. Women at the beginning of their academic career are at the lower end of the academic status hierarchy and therefore will have published less.

Kyvik (1996), in a comprehensive study of faculty in Norwegian universities, found that the same pattern of publication applied to men and women:

*About 20% of both male and female faculty account for half of the published work.*

He also found that men and women with children older than 10 worked the same number of hours per week. Women with children under six, in particular, had problems regarding research. The Norwegian study stressed the importance of having childcare available. This, we all know, is a common finding. In my work on women research students, I found similarly that women are slowed down considerably by lack of childcare (Moses, 1990). (We recognise that this is an issue only in societies where the extended family no longer provides support for women. In societies where extensive social obligations and networks operate, there are other pressures on women.)

However, Kyvik's other conclusion is probably less culture-bound. Recognising that women tend to work more in groups and are socialised to work and play harmoniously in teams and groups, his finding has implications for how we organise research. He noted:

*...we have found that lack of research collaboration with colleagues, inside or outside a university department, has a significant negative impact on women's productivity, but not on men's. We also found that women, more than men, want more collaboration with other researchers and more support and encouragement from colleagues.*

You will note that the whole workshop programme is designed to enable women to collaborate, to share, to support and be supported, and to encourage and be encouraged.

## **1.6 Equal access for women**

There is recognition in those countries which have an official equity policy, and indeed in those countries where women have put equity on the public agenda, that the position of women in higher education needs to be improved by adopting a set of strategies.

### (a) USA

The following specific initiatives were reported as adopted, especially at doctoral universities: a woman's centre; periodic reports on the status of women; a special commission or taskforce on the status of women (El-Khawas, 1993). She notes:

*Actions have also been taken to improve the status of women faculty. This may include policies to 'stop the tenure clock', adjustments for salary inequities, assistance to dual-career couples, or special funds to recruit women into faculty positions. Four-year public institutions are more likely than other institutions to have such policies.*

### (b) Australia

In Australia, there are a number of system-wide, university and department initiatives.

The Commonwealth Staff Development Fund was set up:

*To enhance the quality of teaching, research and scholarship, management and public interface across the higher education system through the development of individual staff, and*

*to facilitate the development of processes for staff development within and between institutions which provide staff with opportunities to gain experience and enhance skills that are appropriate to their changing roles and to individual career progress.*

(Department of Employment, Education and Training, 1995)

A relatively small sum, \$5 million per annum for six years, was allocated for this in 1990 by the federal Department of Employment, Education and Training. The Committee was aware of the needs of women and both invited applications addressing women's needs and requested statistics on beneficiaries of the schemes to monitor equity targets.

Nearly half of the applications sought funds to release faculty staff from teaching to upgrade their formal qualifications. About a quarter of the applications received from institutions addressed research training. The Committee noted in its report:

*The Committee questions the common assumption that former CAE [college] staff need development in research skills purely because they were not required to perform research in the past. It is not universally agreed that PhDs and research performance are required of staff in departments such as art and design, creative arts or accounting.*

(*ibid*: p. 10)

While one may agree with the second point, most former CAE faculty staff would say that in the new institutions it was vital for status and advancement to conduct research. Many of the women working in new higher education institutions across the Commonwealth are finding that research empowers them both personally and professionally, and it awards status.

In my experience, these schemes have been very successful indeed. At my previous university (University of Technology, Sydney) and at my present one, we have sought and gained funding for the development of research skills and opportunities, giving preference to women. At the University of Canberra we also funded through the scheme a significant number of women to upgrade their qualifications.

We developed programmes to develop research skills and opportunities, using a range of strategies and provisions:

#### ***A senior researcher-in-residence***

The researcher-in-residence acted as facilitator, mentor and catalyst for a whole school/department. The researcher-in-residence was appointed at professorial level for one year. She was an external appointment and worked with (mainly women) faculty staff in the School. She collaborated with some, encouraged some, assisted some, and generally acted as yeast, engaging faculty, encouraging those interested in research but not confident enough to undertake a project on their own, assisting those who needed feedback, and generally being a resource for both experienced and inexperienced researchers.

#### ***A research 'course'***

In such a course, faculty (mainly women) who had rusty research skills could update skills, receive input from experienced colleagues, network across disciplines, get feedback on their projects – conceptualising research, analysing research, writing, or writing grant applications.

Over several years, this course was changed to suit the needs of individual participants. The networking aspect has been particularly beneficial with collaborative research ensuing. Both mentors (experienced researchers) and course participants received some teaching release.

#### ***Residential workshop for supervisors of research students***

Again, many women were attracted to this, as many women academics are new to supervision. The workshop consisted of a mixture of input and problem-solving sessions, and sharing of experiences. This was highly successful in both institutions and, increasingly, departments or faculties take on responsibility for inducting new supervisors.

#### ***Statistical adviser***

Many women, particularly those who finished their formal education some time ago, are not familiar with statistical packages and even some of the more basic statistical concepts. The availability of a statistical adviser helped them to gain confidence and produce credible research results.

#### ***Conference funding***

The importance of networking cannot be overestimated. While modern technology does facilitate communication across space, there is no decline in conference attendance. Most staff still prefer to discuss face to face and to meet colleagues. For researchers, it is very important to be able to participate in the public discussion. Funding for the presentation of research papers facilitates this. It must be noted that full funding is hardly ever possible; staff are expected to seek funding from other sources or subsidise conferences themselves. In Australia at least, such costs are tax-deductible.

#### ***Visiting scholar scheme***

This is similar to the researcher-in-residence scheme, but only funds a visit of a few weeks to a research centre. Visiting scholars are expected to give seminars and interact with faculty and research students.

### **Departmental retreats**

In such retreats, departments address collectively how to enhance their internal research culture and the research opportunities and productivity of all faculty. They focus on facilitation of research through academic leadership and on research support. The role of head of department and professor is crucial in the development of a positive research culture.

Other universities have had similar programmes, some focusing particularly on mentoring schemes, or research skills, or research management skills.

One of the largest ones (\$200,000) is currently at the Victoria University of Technology. I quote from the report:

*Research Skills Development through Mentor Led Collaborative Research Groups is an extension of the current Commonwealth funded 'Collaborative Research Group Staff Development Scheme', through which 10 Collaborative Research Groups (CRGs) comprising 118 staff are acquiring research skills directly related to their specific needs and interests in the context of real research projects.*

*As in 1994, the programme will stimulate the formation and development of common research interest CRGs ...*

*Each group will be required to submit a staff development programme which details the research project to be undertaken, the specific development needs of the group which will enable it to conduct the research project throughout its preparation, process and product stages, and the proposed means by which those research skills are to be acquired.*

*Specific staff development activities (workshops, seminars, short courses, symposia) based on the needs of member CRGs will be offered on a University-wide basis. CRG mentors will receive mentoring and management training (e.g. skills in leadership, team-building, planning and goal-setting, negotiation, motivation, time management, writing proposals). CRGs will be assisted by a Research Assistant and coordinated centrally by a senior academic and a project officer. The programme will culminate in a conference at which CRGs will present completed research or research-in-progress and evaluate the programme in terms of research skills acquired.*

*(ibid: p. 24)*

Clearly, we have been lucky in Australia in that it was acknowledged that the restructuring of higher education in the late 1980s required academic staff to gain new skills, and some funds were then made available for skills development.

However, many of the above processes can be adopted or adapted to suit local circumstances, as part of building up research networks, as part of human resource development, as part of academic staff development. While they would not necessarily require external funding, internal support is vital.

The following is an example of a successful initiative at a research university in Australia which incorporated some small colleges at the time of the restructuring of higher education. At the University of New South Wales, women staff formed a Women in Research Committee (WIRC):

*to increase the representation of women in University research and its research management structure, and to establish a network of women researchers within the University.*

*(University of New South Wales, 1994)*

WIRC was able to get internal funding to conduct a study on women researchers at UNSW which clearly established that women were not applying as much for external research grants as men. Nearly two-thirds of the respondents to the survey believed that active fostering and encouragement at departmental level would lead to a greater application rate by women. WIRC addressed the strategic planning process and the monitoring process at the university and recommended action, among other things, that heads of department should ensure that teaching loads were distributed on a gender-equal basis and should actively foster and encourage women in research.

WIRC suggested that the appointment of a Women's Research Development Officer would contribute to ensuring the university's position. This position was funded for one year at senior lecturer level. All of this happened within a university already committed to equal opportunity and keen to retain its high research reputation.

Again, many of the suggestions made by the group can be taken on board by universities in Commonwealth countries. External funding may be desirable, but it is not necessary. However, there must be institutional commitment and support as women are expected to devote a lot of time to these actions – at high personal cost.

In Section 2, the rationale for the workshop programme and details of the constituent workshops are given. Senior academic administrators might wish to serve as role models in some of these workshops or to sponsor them as 'patron'. The endorsement of senior management will greatly serve to empower the staff development team, and finally to empower women faculty.

## Section 2 Notes for facilitators

Many of the workshops and strategies have been successfully implemented. However, they were developed and used in a particular society, mostly Australia; they were developed in a particular higher education system that has 'admitted' many women to its academic staff without research background and therefore career opportunities; and they were developed in particular institutions which valued research for its own sake and had a strong equity agenda. Hence our experience influences what we present, in full awareness that your experiences will differ.

We hope that you as facilitators have the insight into your own society and institution to adopt and adapt from the workshop programme as is appropriate within your context.

### 2.1 The training programme

In the area of women, research and leadership we do not expect instant miracles. We acknowledge that the acquisition of skills, knowledge and attitudes is a longer-term process. Hence this programme needs to be embedded in women's normal academic life. In Section 3 there are suggestions on timing, and again, you will need to make the decision how best to present the programme in your institution.

#### (a) Rationale

Universities in general are administered, led or managed by senior academics. In most institution types only senior researchers, mainly professors, have access to senior management positions, even to middle management ones like heads of department. In the module 'Academic Leadership' a rationale is given as to why we would want to encourage women to take up leadership positions. In this module we try to present strategies which enable women to become effective researchers; to become confident members of institutional, national and international research communities; and to take up leadership positions in research, and via that, senior positions in universities generally.

Women do not work in isolation, and research benefits from shared input, from feedback, from collaboration. Therefore many of the workshops have as a secondary aim to develop or enhance a research culture. The suggestions made in Section 1.6 are most pertinent to this.

#### (b) Aims of the programme

This programme of workshops and strategies aims to:

- make transparent the institutional practices and policies with regard to research, career advancement and development, and enable women faculty to:
  - access institutional resources (research office/administration);
  - assess their career aspirations and the skills they need to realise these;
  - gain new skills, knowledge and attitudes;
  - establish and develop networks and supporting relationships;
  - participate confidently in departmental and university affairs;
  - take responsibility for their own careers and development.

These aims are reflected and operationalised in the different workshops.

While it is desirable for women to participate in all workshops, most workshops can be offered as a distinct event, and objectives for each are detailed in Section 3.

### **(c) Target audiences**

The module is aimed at a variety of persons – senior managers and staff developers, and women faculty as participants.

As noted in Section 1, senior managers legitimise and validate such a programme by supporting it, contributing to it and enacting it. They may also promote the programme as a vehicle to establish a research culture in an institution or discipline which has been predominantly teaching-oriented, and enhance the opportunities of women in new disciplines and changing institutions.

Staff developers can use this programme as a resource, not a prescription, not a recipe, but for ideas, tried strategies and approaches.

In institutions where there are no individuals in a staff development role, senior managers and/or heads of departments may like to take up this role or propose a faculty member with some experience in academic leadership and group work. It may be more productive to nominate a small number of people who can act as a team.

Such faculty members will bring different academic and teaching experiences to the task and they may well benefit from reading the first module 'Management Development for Women: A Facilitator's Handbook'.

As to the women faculty – clearly many of the activities are directed towards the younger woman who is still building a research career. Some of the more visible roles in universities can only be taken up, however, by women with a profile, hence more experienced, mid-career women will also benefit from some of the workshops. Each workshop outline will indicate who the target group is.

There is another role for more experienced women researchers, namely as contributors, role models and mentors. In Section 1 we referred to some research data which showed that women enjoy and produce more if working in a collaborative way. All of the workshops are structured in such a way as to give individual women a voice, to empower women and to enable them to bring into the learning process their own experiences. The structure acknowledges the need for collaborative learning.

## **2.2 Skills required of facilitators**

In this module, as in all modules, facilitators need to be familiar with the first module, 'Management Development for Women: A Facilitator's Handbook'. While no one is a perfect trainer or facilitator, everyone needs to have the following skills in order to conduct this module effectively:

### **(a) Ability to relate to people**

The ability to relate and interrelate with a wide variety of women, including young researchers, senior management, administrative staff and external professionals, is necessary. In the workshop programme we are drawing on a range of people as participants and contributors, and the facilitator must be able both to enthuse participants and get them involved, willing to contribute and to share.

### **(b) Skills in organising**

Naturally, organising workshops, and in particular a series of workshops, needs organisational skills. For those who are new to organising such programmes, Section 2.4 provides assistance.

### **(c) Ability to access and utilise resources**

This module provides some resources, but for every workshop additional resources may be appropriate: national and institutional statistics on women's career paths in academia; tenure and promotion criteria in this institution; examples of scholarly journals and their publication policies; examples of mentor schemes; or examples of successful grant applications which can serve as models.

### **(d) Communication skills**

Workshops draw heavily on the ability of the facilitator(s) in active listening; in involving participants; in conflict resolution; in negotiating; in paraphrasing and reflecting. Facilitators may want or need to give mini-lectures and have to present these convincingly. They need small group skills and awareness of when intervention is needed and when groups are best left to work on their own. They need skills in drawing people out, inviting and enabling them to share their experiences and expertise.

In some of the workshops, participants will have different opinions, different experiences and different solutions. Facilitators need to be sensitive to the group climate, to emerging or even open aggression or hostility, and to be able to resolve conflict.

It is important that facilitators are sensitive to any unresolved professional or emotional issues and bring sessions to a close with appropriate debriefing.

### **(e) Humility**

These workshops are for highly skilled women. The facilitators only facilitate professional and personal growth through these workshops. The participants take their own responsibility for their growth. They decide what they need and how what is offered can best be used to fit into their life and aspirations. Facilitators may offer choices, but the participants select appropriate choices for themselves.

Facilitators who are academic colleagues naturally are invited, indeed will be expected by participants to contribute substantially from their relevant experience. While the skills mentioned above apply, the academic facilitator has a more active role than the staff developer without the research expertise.

## **2.3 Advance organisation**

The whole programme needs to be planned several months before it can begin – the availability of mentors, of other senior staff, of a patron need to be ascertained and women in the institution need to be canvassed.

Each workshop in Section 3 details the advance organisation necessary. Not included in the details in that section is the preparation of materials. Clearly, facilitators need to do overheads, read the materials and, where necessary or desirable, have forms and hand-outs copied.

Facilitators may need to negotiate with a patron or sponsor who bears the photocopying costs and the costs for tea, etc.



What follows here is a summary of the additional advance preparation necessary.

1. Invite a senior academic (top-ranking academic, preferably a woman) to be patron/sponsor to the programme. Invite her to attend Workshop 1 and Workshop 10.
2. Before advertising the programme, approach a number of more experienced researchers, preferably women, from the same institution and ask them to commit themselves to a mentoring relationship at least for the course of the programme. Their involvement will start from Workshop 3, but they may like to participate and contribute to the whole programme.

Facilitators will need to meet with the potential mentors and share with them the profile of the participants in terms of disciplinary backgrounds, career goals, and skills and experiences needed.

3. For Workshop 2, invite as additional resource persons:
  - a head of department, preferably a woman;
  - the administrator responsible for research matters;
  - the administrator responsible for institutional planning and statistics;
  - the administrator or senior academic familiar with tenure and promotion policies.

Brief these on their role in the workshop, i.e. the amount of time they have available for speaking, and the information you are interested in (see Workshop 2 for details). Ask them to stay, if at all possible, for the whole session and definitely for the break, to allow informal interaction with participants.

4. In anticipation of outcomes from Workshop 1 'What skills do I need?', workshops on quantitative and qualitative research methodologies need to be prepared (Workshops 4 and 5). You need to organise these, not present them. You are responsible for the organisation, the set-up, the availability of equipment, etc., hence you need to liaise closely with the presenters. Many participants will want to attend both workshops, others will want to attend only one. They could be scheduled on one day: one workshop in the morning and one in the afternoon.

As facilitators you need to ascertain which staff member in the institution may be willing and able to present some overview of quantitative methods and of statistical packages and has the skills to let participants experiment (Workshop 4). You also need to find someone who has the knowledge of qualitative packages and experience in using them (Workshop 5).

You need to make sure that both staff and software are available. You will want to discuss with the presenters (who may be experienced researchers or mentors) how the session may be presented so that participants get maximum benefit, can ask questions at each stage, and get some practice.

5. For Workshop 6, other contributors are needed – one or more of the mentors or other experienced researchers.

Depending on your research experience, you may want to leave the session to the mentors, or lead it yourselves and involve the mentors.

Some mentors need to be asked to prepare beforehand so that they can talk about their research project. Some mentors or other staff need to make available successful research proposals. These need to be photocopied beforehand so that participants can read them during the session.

6. For Workshop 7, facilitators may like to invite mentors along. The importance of both collaborative work and networking has been mentioned in Section 1.

If the university is connected to the Internet, ask the most appropriate person in the library or computer centre, or an enthusiastic academic user, to talk about networking on the Internet.

Workshop participants must have attended (most) previous sessions, i.e. have a mentor, and have attended Workshop 6 on planning a research project. The workshop assumes that group members are familiar with each other's discipline and general interest area.

7. Workshop 8 will benefit from the involvement of experienced academics with a good publication record. It is important to have representation from two or three different disciplinary areas as the communication patterns in different disciplines vary. Mentors or other experienced faculty staff (preferably women) will be invited by the facilitators to share their experiences: how they manage their time; how they plan their writing; how they go about selecting journals for publication; and how they prepare and write for publication.
8. Other women may like to join in Workshops 4, 5, 8 and 9. This should be advertised.
9. If you are not an experienced supervisor of graduate students, involve in Workshop 9 one or more experienced supervisors as resource persons. You may want to balance the disciplinary differences by having a science and humanities/social sciences resource person.
10. For Workshop 9 find out what your university's graduate statistics tell you about:
  - completion rate;
  - average completion time;
  - part-time/full-time balance;
  - age and gender distribution across disciplines and faculties.

## 2.4 Preparation for and of the workshops

### (a) Prior to the workshop

1. Advertise the workshop to ascertain the list of possible participants in the workshop. Several ways of getting information to interested persons can be used. These include: heads of sections or departments might be asked to nominate persons; notices of the planned workshop might be placed on noticeboards; all women might be circulated with information about the workshop; if available, the university newsletter(s) could include a notice of and information about the planned workshop. In addition to details of the programme, the notices and advertisements should contain information about the proposed venue and time, whom to contact for further information and how to register for the workshop.
2. Prepare a list of registrants for the workshop. Advise them formally of the date, time and venue. Provide them with any material (e.g. case-studies) you wish them to read prior to attending. It is often helpful to confirm attendance with each participant the day before the workshop.

3. Arrange the venue, catering and seating for small groups and for the group as a whole.
4. Arrange for any additional facilities and material required to be available on the day, e.g. overhead projector, videos and video-player, whiteboard or blackboard.
5. Prepare any material required on the day, e.g. name tags, overhead transparencies, hand-outs, supplies of butcher's paper, whiteboard markers and cleaners, chalk.
6. Prepare participants' folders, if any. These could include hand-outs, relevant readings or other material, copies of overhead transparencies, workshop evaluation forms, a workshop programme and details of any other follow-up programmes to be offered.
7. Undertake any necessary administrative procedures.
8. Arrange for analysis of evaluation forms to occur soon after the workshops.

**(b) Preparation on the day**

1. Ensure required materials and equipment are to hand.
2. Arrange seating, around tables if possible, so that all participants are facing the desired direction.
3. Put out folders for participants.
4. Check refreshments (water, tea, coffee) are available, and confirm catering arrangements.
5. Have list of registered participants to hand, and ensure someone is available early to check in and welcome registrants.
6. At the close, arrange for the collection and forwarding for processing of the workshop evaluation forms.

## Section 3 Programme of workshops

In Section 1, a general statement about women and research is presented. In Section 2, there are notes for facilitators which you need to read before planning the programme. They contain crucial organisational matters, including advance preparation.

This section contains the outlines of the workshop programme. Section 4 contains the overhead transparencies (OHTs) you may wish to use and other materials or hand-outs (HOs) to photocopy for use in the workshops. If photocopying costs are an issue, then some of the forms at least could be copied onto an overhead, or the headings written on a board and participants asked to write these down.

Basically, the programme is conceived in workshops of two to three hours' duration. They could be offered on consecutive days, two workshops per day. However, many women would find it easier to plan the workshops into their schedule if they ran over 10 weeks, on a dedicated evening or afternoon. Alternatively, there could be a full-day workshop after four or five weeks of weekly workshops.

**Model A** 2–3 hour workshops for 10 weeks

**Model B** Intensive programme over five days with a workshop each half-day

**Model C** 2–3 hour workshops for five weeks, one full day, followed by three weeks of half-days.

Facilitators may want to ascertain, when considering offering the programme, which pattern suits potential participants best. There is no one time which suits all interested women. It might be possible for you to repeat one or two workshops to allow women to remain in the group. Facilitators need to determine whether they want the whole group, like a class, to go through the whole programme together and in sequence, or whether they will be comfortable with dealing with a lack of continuity among the group. The following workshops contain the core programme:

1. Introduction to the programme
2. Our department and institution
3. Creating mentor relationships
6. Planning a research project
7. Working collaboratively and networking
8. Writing and publishing
10. Influencing policy and practice.

Three workshops offer additional development opportunities for those women in the core programme who need these skills, and possibly to other women not part of the programme:

4. Updating research skills – quantitative methods
5. Updating research skills – qualitative methods
9. Supervising research students.

These could be offered as part of the programme or whenever a time is convenient.

Facilitators need to find out women's commitment to a full course before it is offered.

If some workshops are attended by a different group of women, then facilitators need to establish each time a group climate, objectives, expectations and expertise available in the group.

The format of the workshops is designed for small group work. A group of 12–15 women works well. Any exercises which depend on all participants bringing forward suggestions will vary in length, depending on group size. Hence, the facilitator needs to watch the time carefully.

In many of the workshops, facilitators will need and want to draw on the expertise of non-participants, e.g. experienced and senior people within the institution. These people must be invited well in advance and be briefed about (a) the objectives of the whole programme, (b) the objectives of the specific workshops, and (c) their role in that workshop.

If possible, have tea, coffee and water available so that women can mingle informally before the first session.

During each session have a break with tea, coffee or water.

The workshop timelines do not allow for evaluations after each workshop. However, the facilitators may want to get feedback after every session. There are proforma evaluations in the module 'Management Development for Women: A Facilitator's Handbook'. Allow five minutes at the end for evaluation.

If you collect feedback at the end of individual workshops, report back at the next workshop what the general results were and what action you have taken, or will take, as a result of the feedback obtained.

### **3.1 Workshop I – Introduction to the programme**

#### **(a) Advance preparation**

- Invite and brief sponsor/patron.

#### **(b) Objectives**

Participants will:

- become at ease with each other;
- understand the rationale of the programme;
- make their expectations explicit; analyse their own development needs;
- make a commitment to their own development.

#### **(c) Outline**

Duration: 3 hours.

5 mins          Welcome by patron/sponsor

10–20 mins      Introduction of participants

If participants do not know each other (well) it is important to spend some time on introduction. See 'Management Development for Women: A Facilitator's Handbook'.

Ask: What do you hope to gain from this course?

This may be tied to the introductions, if participants introduce themselves.

10–15 mins Overview of the programme by facilitators. Explain rationale.

See OHT1 with workshop descriptors; also, you may want to take a few points from 'Women and Research' (Section 1)

60 mins Self-perception questionnaire (HO 1)

Ask participants to fill it out individually and to take their time. Tell them that you will want to pool answers to some of the questions. Allow about 10 minutes. Follow up by summarising the responses, as suggested below.

- Write on board or large brown or 'butcher' paper:

*You as an academic*

Participants may call out what they have written or you may go around the circle. You may find that women describe themselves as a teacher, facilitator, student adviser, administrator, researcher, specialist, generalist, role-model, etc.

Try to group these to demonstrate how multifaceted the academic role is. Make sure that no value judgement flows into the description of the different aspects of the academic role. All aspects are legitimate, indeed necessary. However, as we know, the research role in many institutions is more valued, better rewarded, and related to advancement.

- Then write up:

*Your strengths*

Then list the strengths individuals had noted down.

Proceed in a different way to the first listing. You may want to group the strengths after they have all been noted down under 'academic strengths', 'personal strengths', or other appropriate groupings. Try to elicit how these strengths interrelate with the self-perception as an academic.

Note whether there are any strengths which can be harnessed for the programme.

- Next,

*Career goal in 10 years' time*

Members may be shy in talking about this. You might like to come back to this at the end of the programme.

- And,

*Your ultimate career goal*

Similarly, you may like to skip this here. If there are some volunteers, however, for this and the previous heading you could ask for a few examples. You may find that some women have no career goal and do not know where they want to be or might be in 10 years' time. This is not uncommon at all and women should be encouraged to acknowledge that their present priorities may be keeping a family and job in balance, but that this might change.

- Write down:

*Skills needed*

List skills for career goals here. Participants can call them out.

When no more skills come up, try to group them – if you cannot see a clear grouping, ask participants how they might be grouped. Try to indicate which skills will be discussed, learned in the programme, and where or how the others might be learned.

If there are a lot of skills which are not going to be addressed in the programme, for example negotiation skills, assertiveness, etc., then it is important to say that this has been noted and that possibly other programmes will provide opportunities for acquiring them. Note that there is a module on 'Managing Personal and Professional Roles'. In all workshops it is important to be aware of participants' expectations and to be explicit about which can be met in each particular workshop.

■ Again, list:

*Experiences needed*

This is a difficult area, as some experiences are beyond what you can offer. Participants might want to supervise graduate students, be a head of department, serve on a university committee, receive a grant, etc.

Take all comments seriously and discuss where and how such experiences may be provided. Some of the experiences needed by some women will have been had by others. Invite comments on this.

15–20 mins

After one and a half hours at the most, have a break.

20 mins

■ Now write down:

*Your strengths as a researcher*

Ask participants to note these down. They are then asked to share this with two neighbours. Each group of three is asked to pool the strengths and to discuss whether there are ways of benefiting from each other.

Note that in participants' perceptions they may not have many strengths. But attitudes and attributes like curiosity, stamina, and an open mind are also important strengths for a researcher.

Get each triad to report very briefly on the strengths represented in their group.

10 mins

■ Closure.

Summarise the terrain you have travelled in terms of where participants are, where they want to go, and the skills and strengths they already have and which you hope the course will provide.

Remind participants of the next meeting.

## 3.2 Workshop 2 – Our department and institution

### (a) Advance preparation

In your country the issues relating to research may be very contentious, e.g. what counts as research. Before offering this workshop, it is most important that you consult widely with persons in positions outlined below. People involved need to understand that you are not attacking or undermining the institution but that you are making existing values and practices transparent. Invite to this workshop as additional resource persons:

- a head of department (HoD), preferably a woman;
- the administrator responsible for research matters;
- the administrator responsible for institutional planning and statistics;
- the administrator or senior academic familiar with tenure and promotion policies.

Brief them on their role in the workshop, i.e. the amount of time they have available for speaking, and the information you are interested in. Ask them to stay, if at all possible, for the whole session and definitely for the break, to allow informal interaction with participants.

### (b) Objectives

Participants will:

- understand the institutional staff profile;
- understand institutional decision-making processes affecting tenure and promotion or other advancement;
- understand the decision-making processes concerning research funding;
- understand the demands on and skills needed in being head of department, supervisor of a graduate student, or a research project director.

### (c) Outline

Duration: 3 hours.

- |         |   |
|---------|---|
| 10 mins | Explain the objectives and workshop programme; introduce guests.  |
| 25 mins | <p>Administrator responsible for institutional planning and statistics:</p> <p>He or she has been asked by you to present a 15-minute profile of where women are in the university:</p> <ul style="list-style-type: none"> <li>■ women as a proportion of PhD students by different disciplines;</li> <li>■ women at each academic level (lecturer, senior lecturer, etc., or assistant professor, associate professor, etc. – use your institutional nomenclature);</li> <li>■ women as a proportion of senior management, deans, heads.</li> </ul> <p>Present this information as a hand-out.</p> |



	General discussion about the possible reasons for the low representation of women.
	The discussion may become aggressive, but as the statistics officer is not responsible, make sure that attacks are channelled or questions re-directed to later contributors.
25 mins	A head of department, preferably a woman.  She has been briefed by you to talk for 15 minutes about challenges as a head; skills needed for headship and how she acquired them; and her role in university-wide affairs.  Questions, discussion.
20 mins	The administrator or senior academic familiar with tenure and promotion policies.  He/she will have been briefed by you to talk for 10 minutes explaining the procedures and criteria for promotion, and to speculate why women are at the bottom of the academic hierarchy.  Questions.  Be aware that participants may challenge the presenter. Try to work towards positive outcomes, i.e. 'Do the criteria need changing? In which way can women's work be better evaluated, better acknowledged?'
20 mins	Break.
15 mins	Administrator responsible for research matters.  He/she will have been briefed to talk for 10–15 minutes on how research and research funding is organised, what women can do to increase their chances of success; how women can participate more in university affairs relating to research.
25 mins	An action agenda: What can we do to change the profile of women in the department; in the university? Group work in groups of four or five. If the resource persons are still there, allocate each to a group and ask the group to come up with suggestions for each topic: <ul style="list-style-type: none"> <li>■ tenure and promotion policy;</li> <li>■ representation of women at middle management level (HoD);</li> <li>■ involvement in research management and administration.</li> </ul> Ask them to write suggestions down.
10 mins	Thank contributors and participants for their contributions and involvement. Promise to have the suggestions typed up and passed on to the senior officers responsible for consideration and implementation.  Follow-up: get suggestions typed up and photocopied.

### 3.3 Workshop 3 – Creating mentor relationships

#### (a) Advance preparation

Before the programme was advertised, as facilitator you will have approached a number of more experienced researchers, preferably women, from the same institution and asked them to commit themselves to a mentoring relationship at least for the course of the programme.

You will have met with the potential mentors and shared with them the profile of the participants in terms of disciplinary backgrounds, career goals, and skills and experiences needed. As mentoring relationships are culturally bound, you will want to discuss with the mentors how they see their role.

Note that the module 'Women and Governance in Higher Education' has a session on mentoring (Workshop Day 3) which could provide additional reading and resources.

#### (b) Objectives

Participants will:

- meet experienced colleagues;
- negotiate a mentor relationship with a colleague;
- work out an action plan with their mentor.

#### (c) Outline

Duration: 2 hours.

- |         |  |
|---------|--|
| 10 mins | Facilitator summarises the first two workshops: women's career goals, the skills and experiences they need and the strengths they have. Refer to Workshop 2 and what was learned there.<br><br>You may draw on the hand-out on mentoring (HO 2).   |
| 10 mins | Participants briefly introduce themselves in terms of their disciplinary background and research interests.  |
| 30 mins | Mentors introduce themselves for about five minutes each: their research areas and interests, expertise, the methodologies they use, what they can offer a younger staff member.   |
| 40 mins | Informal – participants may have tea, etc.<br><br>Mentors go to different parts of the room(s) and participants go and talk to one or more about a possible working relationship.<br><br>Facilitators need to watch out that all mentors have someone talking to them. On average one may say that each mentor has 2–3 colleagues to work with.  |
| 25 mins | Present options about how the relationship may work:<br><br>Ask each participant to note down what they are seeking from their mentor; how often they want to see them; who initiates contact; where will they meet.<br><br>Mentors may be involved in: <ul style="list-style-type: none"> <li>■ giving feedback on research proposals; on draft chapters; on project management;</li> </ul> |

- giving advice on suitable journals for publication; on supervision issues; on how to referee journal articles etc.;
- introducing their younger colleagues to their own network.

Ask participants and mentors to come together again and agree on how their relationship may work.

Participants and mentor might like to have an informal relationship, only meet over coffee and discuss anything then. This is a voluntary relationship – an important outcome would be that the participants have connected with someone who has more experience and will have access to guidance and advice.

5 mins

Closure.

Thank all the mentors and forewarn them that they will be asked again to later sessions.

### 3.4 Workshop 4 – Updating research skills – quantitative methods

#### (a) Advance preparation

Workshops 4 and 5 require prior preparation.

In anticipation of the outcomes from Workshop 1 'What skills do I need?', workshops on quantitative and qualitative research methodologies have been prepared. As facilitators, you need to organise these, not present them. You are responsible for the organisation, the set-up, the availability of equipment, etc. Hence, you need to liaise closely with the presenters. Many participants will want to attend both workshops, others will want to attend only one. They could be scheduled on one day, one workshop in the morning, one in the afternoon.

As facilitators, you need to ascertain who in the institution is willing and able to present some overview of quantitative methods and statistical packages, and who will let participants experiment.

You need to make sure that both staff and software are available.

Participants will want to discuss with the experienced researchers or mentors how the session may be presented so that participants get maximum benefit, can ask questions at each stage and get some practice.

Workshops 4 and 5 may be scheduled later in the programme. Each can accommodate women who are not part of the main programme.

#### (b) Objectives

Participants will:

- gain an overview of quantitative methods;
- appreciate the characteristics of various software packages;
- gain some confidence in choosing appropriate ones;
- practise with some packages.

#### (c) Outline

Duration: 3–5 hours, depending on availability of staff and software.

Details of programme to be determined by presenter(s).

### 3.5 Workshop 5 – Updating research skills – qualitative methods

#### (a) Advance preparation

Workshops 4 and 5 require prior preparation.

In anticipation of the outcomes from Workshop 1 'What skills do I need?', workshops on quantitative and qualitative research methodologies have been prepared. As facilitators, you need to organise these, not present them. You are responsible for the organisation, the set-up, the availability of equipment, etc. Hence, you need to liaise closely with the presenters. Many participants will want to attend both workshops, others will want to attend only one. They could be scheduled on one day, one workshop in the morning, one in the afternoon.

You need to ascertain who in the institution is willing and able to present some overview of qualitative methods, statistical packages for the analysis of qualitative data, and who will let participants experiment. While qualitative research methods, including action research and case study methodologies, are widely accepted in some countries, in others they are still regarded as 'soft'. Many of these methodologies are used in newer disciplines and in disciplines in which women work. Hence, it is important to involve knowledgeable and respected researchers from a variety of disciplinary backgrounds using a variety of methods.

You need to make sure that both staff and software are available. If no software is available or no one has experience with software for qualitative analysis, the last three objectives become redundant.

Participants will want to discuss with the experienced researchers or mentors how the session may be presented so that participants get maximum benefit, can ask questions at each stage and get some practice.

Workshops 4 and 5 may be scheduled later in the programme.

#### (b) Objectives

Participants will:

- gain an overview of qualitative methods;
- appreciate the characteristics of methods;
- be able to choose appropriate methods for specific purposes;
- appreciate the characteristics of various software packages;
- gain some confidence in choosing appropriate ones;
- practise with some packages.

#### (c) Outline

Duration: 2–5 hours, depending on availability of staff and software.

Details of the workshop programme to be determined by presenter(s).

## 3.6 Workshop 6 – Planning a research project

### (a) Advance preparation

Again, for this workshop, other contributors are needed – one or more of the mentors or other experienced researchers.

Depending on your research experience, you may want to leave the session to the mentors, or lead it yourself and involve the mentors.

Some mentors need to be asked to prepare beforehand so that they can talk about their research project.

Some mentors or other staff need to make available successful research proposals. These need to be photocopied beforehand so that participants can read them during the session.

### (b) Objectives

Participants will be able to:

- generate research questions in their field;
- select appropriate methodology(ies);
- plan the project;
- anticipate the outcomes;
- write a research proposal.

### (c) Outline

Duration: 3 hours.

10 mins	Short reports on progress made over the past weeks, in particular through working with a mentor: some volunteers.
30 mins	Group work in groups of five. Write on board: How are research questions generated in our fields? How did I find and focus research questions myself? Brief yourself for prompts by reading 'Selecting the research topic' (HO 3). Even though this was written for supervisors of research students, the same principles apply. You may wish to go from group to group and monitor progress, sit with one group at a time, or if you have no experience in this area, leave the groups to the mentors.
40 mins	Ask two mentors from different backgrounds to illustrate how they chose a research topic and the methodology to investigate it. You will have briefed them beforehand so that they will be able to explain their thought processes, if applicable, false starts they made, etc.
20 mins	Break.
60 mins	Discuss in groups successful research proposals; analyse the structure and argument. These groups could well be lead by mentors.
20 mins	Lead discussion on common features.

Common features are likely to be:

- clear aims and objectives;
- a worthwhile project which has economic, cultural, social significance or contributes to the advancement of knowledge in the discipline;
- clear rationale for the project, embedding it in the literature;
- a research plan which addresses the objectives;
- a time plan which is feasible;
- a budget which is well argued and shows that the researcher is aware of the time and resources necessary to bring the project to a successful conclusion.

Closure: Summary.

Some of the participants may well have attended in order to get feedback on their proposal or to get ideas on how to write a proposal. It is important for the facilitators to establish this so that a commitment to finish this can be negotiated – see Workshop 10.

During this workshop questions of project management and time management are likely to arise. You may like to have the hand-out 'Managing the project' (HO 4) ready for distribution.

### 3.7 Workshop 7 – Working collaboratively and networking

#### (a) Advance preparation

Facilitators may like to invite mentors along. The importance of both collaborative work and networking for women has been mentioned in Section 1. Familiarise yourself with the arguments presented there.

If the university is connected to the Internet, ask the most appropriate person in the library or computer centre, or an enthusiastic academic user, to talk about networking on the Internet.

Workshop participants must have attended (most) previous sessions, i.e. have a mentor, and have attended Workshop 6 on planning a research project. This workshop assumes that group members are familiar with each other's discipline and general interest area.

#### (b) Objectives

Participants will:

- be aware of the contribution they can make;
- be proactive in seeking collaborators;
- analyse their own networking;
- be committed to networking;
- become familiar with the Internet.

**(c) Outline**

Duration: 2–3 hours.

5 mins	Overview and objectives.
10 mins	Participants note down: <ol style="list-style-type: none"> <li>(1) 'What do I bring to collaborative research?'</li> <li>(2) 'On what type of project would I like to collaborate?'</li> </ol> Write questions on board.
30 mins	List responses to (2) on board. Participants are encouraged to indicate their interest in joining, drawing in particular on what they have noted under (1). Note down groups of people ready to collaborate.
15 mins	Brainstorming on where one might find collaborators if none are in the group.
10 mins	Participants note down (write questions on board): <ul style="list-style-type: none"> <li>■ which conferences they attended in the past three years;</li> <li>■ which professional/disciplinary associations they belong to;</li> <li>■ which committees, working groups etc. they belong to.</li> </ul>
15 mins	Ask for volunteers to talk about the benefits of conference attendance; or membership in disciplinary associations; or committees.
15 mins	Explore barriers to participation and how to overcome these.
20 mins	Break.
55 mins	Networking on the Internet. <p>It may well be that the initial information technology skills of some participants are not good enough to make use of the Internet. Discuss with the appropriate persons in the university how training may be provided.</p>
5 mins	Closure.

**3.8 Workshop 8 – Writing and publishing****(a) Advance preparation**

This workshop will benefit from the involvement of experienced academics with a good publication record. It is important to have representation from two or three different disciplinary areas as the communication patterns in different disciplines vary. Mentors or other experienced faculty staff (preferably women) will be invited by the facilitators to share their experiences: how they manage their time, how they plan their writing, how they go about selecting journals for publication and how they prepare and write for publication. Note that the status and importance of international journals is very high; but many women would (also) want to contribute to local, regional or national debate and development and publishing. This requires different writing and publishing in different journals.

Other-than-core-programme participants may like to join.

**(b) Objectives**

Participants will:

- be motivated to write for conferences or publication;
- plan a writing task and commit themselves to seek feedback from mentor and/or group participants at a later stage;
- be aware of ethical considerations and conventions of authorship.

**(c) Outline**

Duration: 3 hours.

10 mins	Introductions all around if new group, or sharing of experiences since last meeting.
5 mins	Purpose of this workshop; introduce mentors or other contributors if new group.
15 mins	Motivational talk. Refer to hand-outs: 'Common misbeliefs about writing' (HO 5) 'Benefits of publication' (HO 6) You may expect that some participants will be inexperienced in writing. In some cultures with strong oral traditions, the importance of writing in scholarly discourse and communication has to be stressed. Women need to explore how to 'break into' traditional journals and still preserve their own voice as women and as researchers in particular areas, e.g. women's studies.
15 mins	Participants to note down (see Writing, HO 7): ■ why they want to write; ■ under which circumstances they write best/most; ■ what prevents them from writing as much as they wish; ■ what they could learn from successful writers.
30 mins	Group of mentors and/or other experienced faculty talk about: ■ how they manage their time; ■ how they plan their writing; ■ how they go about selecting journals for publication; and ■ how they prepare and write for publication.
15 mins	Questions to the mentors, in particular with reference to the questions noted down before.
20 mins	Break.
15 mins	Discuss hand-out 8 'Control principles for writing'. Robert Boice is Director, Center for Faculty Development, and Professor, Department of Psychology, at California State University, Long Beach. He has given many successful workshops on writing. However, his experiences with US faculty staff may not be completely applicable to members of your workshop. Hence none of the hand-outs



are to be taken as a recipe, only as a trigger for reflection. The author of this module, for example, prefers big blocks of time so that she can be immersed in the area in which she is writing. The important outcome is that group participants become aware of their own preferences.

With regard to 'best time' – the author discovered by accident that her best time for writing was between 5 pm and 8 pm – a time during which she had spent 10 years picking up children from school and cooking the evening meal. Once she was aware of this she started negotiating a regular day when she could come home late.

25 mins Participants to write down a 'contract with themselves' based on the points raised in hand-out 9.

Participants to explain what they have written to a neighbour in the group, i.e. participants work in dyads.

20 mins Authorship

Refer to hand-out 10 'Code of conduct for the responsible practice of research'. The principle is that all those who contributed significantly should be acknowledged as authors. However, there are different disciplinary conventions: in some disciplines the senior researcher is the first author; in others the order is alphabetical.

Group to discuss conventions within the discipline represented.

5 mins Closure.

### 3.9 Workshop 9 – Supervising research students

You may find that your university offers few graduate degrees and that most doctoral students undertake higher degree studies in other countries. Skip this workshop if this situation applies to your university.

Supervising graduate students is a high-status academic activity and a very demanding one. It draws on both the supervisor's own research experience and their ability to guide and assist students. Everyone supervises at one stage for the first time, and it is as important to facilitate the growth of this first graduate student as the last.

#### (a) Advance preparation

If you are not an experienced supervisor of graduate students, involve one or more experienced supervisors as 'resource' persons. You may want to balance the disciplinary differences by having a science and a humanities/social sciences resource person.

Find out what your university's graduate statistics tell you about:

- completion rate;
- average completion time;
- part-time/full-time balance;
- age and gender distribution.

## (b) Objectives

Participants will:

- become aware of their own expectations with regard to supervision;
- learn strategies for successful supervision; and
- be committed to enhancing the graduate studies experience.

## (c) Outline

Duration: 3 hours.

- |         |  |
|---------|--|
| 10 mins | <p>Introductions, if this is a new group of participants.</p> <p>Ask around to see who has supervised Master or PhD students.</p>  |
| 10 mins | <p>Noting down of expectations:</p> <p>There are two different forms: one asks the participants to note down where the problem originates; whose problem it is (see HO 11). You can then group these, listing them in separate columns.</p> <p>Alternatively, you may just list problems ('Supervising research students' HO 12) and you group them after the listing in discussion/negotiation with the group participants.</p> |
| 40 mins | <p>List on board/paper and group under headings: 'Institution', 'Department', 'Supervisor', 'Student'.</p> <p>This will lead to quite a bit of discussion. If there are experienced supervisors present, encourage their input.</p> <p>Make sure to indicate which of the issues will not be discussed in this particular workshop.</p>  |
| 15 mins | <p>Provide statistics from your university. If there are none, use those on overhead 2 to indicate what problems there might be.</p>   |
| 20 mins | <p>Break.</p> <p>Facilitators may choose between three alternatives for group work:</p>  |

### *Alternative 1: Group work in groups of 5–6*

- |         |  |
|---------|--|
| 50 mins | <p>The role of supervisor.</p> <p>See 'The role of supervisor' (HO 13).</p> <p>Individuals are asked to fill in the sheet on their own, then to discuss in their group and summarise points on a sheet of paper/overhead transparency.</p>   |
| 20 mins | <p>Groups come back together. Each one reports back to the plenary.</p>  |
| 15 mins | <p>Identify issues which were not resolved and indicate where and how they might be.</p> <p>Refer to the listing earlier in the workshop.</p> <p>Closure. Refer to hand-out 'Discussion summary for participants' (HO 15).</p> <p>You may reproduce this as a hand-out or use it as a prompt for your own summary.</p> |

*Alternative 2: Role perception rating scale*

This form (HO 14) is used to help participants clarify where they see most of the responsibility and control lying – with themselves or with the students. You will also need to prepare an overhead transparency from HO 14.

For a small group (up to eight or so) one can ask participants to fill it in individually. You may then tally the ratings on the overhead prepared from HO 14. That is, enter an 'average' rating on the overhead transparency. Then invite participants to say why they have circled a particular number. Usually, a wide range of strategies, principles and problems are covered in the discussion.

In a larger group, participants could rate individually, then compare in pairs. You may only wish to tally some of the items. Again, invite participants to give reasons for their ranking.

10 mins Individuals fill in the form.

60 mins Listing and discussion of reasons for rating, including strategies.

15 mins Identify issues which were not resolved and indicate where and when they might be.

Refer to the listing earlier in the workshop.

Closure. Refer to hand-out 'Discussion summary for participants' (HO 15).

You may reproduce this as a hand-out or use it as a prompt for your own summary.

*Alternative 3: Departmental and institutional facilities and processes conducive to graduate study*

In institutions with little tradition of research degrees, this may be an additional activity or a substitute for alternatives 1 and 2.

10 mins Participants fill in form 'Department provisions necessary for an environment conducive to graduate study' (HO 16).

50 mins Discussion.

In a small group (up to eight) there is a general discussion on each item, drawing on participants' notes. In larger workshops, sub-groups are formed. Group members are asked to discuss their responses in their group and to summarise points on a sheet of paper/overhead.

20 mins Groups come back together. Each one reports back to the plenary.

15 mins Identify issues which were not resolved and indicate where and when they might be.

Refer to the listing earlier in the workshop.

Closure. Refer to hand-out 'Departmental and institutional facilities and processes' (HO 17).

You may reproduce this as a hand-out or use it as a prompt for your own summary.

### 3.10 Workshop 10 – Influencing policy and practice

In Section 1 a number of strategies were listed which would improve women's opportunities and visibility. You may use them as a prompt or checklist.

#### (a) Advance preparation

It would be appropriate to invite to this session the sponsor/patron and mentors.

#### (b) Objectives

Participants will:

- become aware of strategies which will increase their opportunities and visibility; and
- be committed to work toward implementing those strategies.

#### (c) Outline

Duration: 2–3 hours.

5 mins	Welcome of sponsor/patron; objectives of the session.
70–90 mins	<p>Raise and discuss the following questions, possibly writing them on the board:</p> <ul style="list-style-type: none"> <li>■ What needs to be done at institutional level which will give women greater opportunities and voice?</li> <li>■ Whose responsibility is it?</li> <li>■ What can we do to make it happen?</li> </ul> <p>Facilitators may want to have general group discussions and make lists on the board/paper, or they may want individuals to write down their ideas first, then share them, or they may want to deal with each question differently.</p> <p>Issues that may arise are: the plight of short-term contract staff; (again) promotion criteria which do not acknowledge women's fields; different career patterns of women which need to be accommodated.</p> <p>Encourage focused discussion and an action plan.</p>
20 mins	Break.
10–30 mins	<p>What can be done nationally and internationally?</p> <p>Participants may well not be interested in this. If there is little response, refer to the action plan in Section 1 and ask for further strategies.</p>
40 mins	<p>Grand closure.</p> <p>Remind participants of the strengths they brought to the programme and their career goals (Workshop 1).</p> <p>Each participant to say:</p> <ul style="list-style-type: none"> <li>■ what she has learned;</li> <li>■ what she is going to do (what she has committed herself to).</li> </ul> <p>Thank all participants and encourage them to keep in touch with each other.</p> <p>Use the evaluation form (HO 18), asking what kind of follow-up sessions they want.</p>

## Section 4 Support materials

### 4.1 Overhead transparencies

OHT 1 Outline of workshops

OHT 2 Problem areas in supervision

### 4.2 Hand-out materials

HO 1 Self-perception questionnaire

HO 2 Mentors – What are they? What do they do? (3 sheets)

HO 3 Selecting the research topic (2 sheets)

HO 4 Managing the project

HO 5 Common misbeliefs about writing

HO 6 Benefits of publication

HO 7 Writing questionnaire

HO 8 Control principles for writing

HO 9 Control principles for my writing

HO 10 Code of conduct for the responsible practice of research (3 sheets)

HO 11 Supervising research students 1

HO 12 Supervising research students 2

HO 13 The role of supervisor

HO 14 Role perception rating scale

HO 15 Discussion summary for participants (3 sheets)

HO 16 Departmental provisions necessary for an environment conducive to graduate study

HO 17 Departmental and institutional facilities and processes (7 sheets)

HO 18 Evaluation form (3 sheets)



## Outline of workshops

## OHT 1

This programme of workshops and strategies aims to:

- make transparent the institutional practices and policies with regard to research, career advancement and development;
- enable women faculty to access institutional resources (research office/administration);
- enable women faculty to assess their career aspirations and the skills they need to realise these;
- enable women faculty to gain new skills, knowledge and attitudes;
- establish and develop networks and supporting relationships;
- enable women to participate confidently in departmental and university affairs;
- enable women to take responsibility for their own careers and development.





**Problem areas in supervision****OHT 2**

Common complaints about supervisors:

- not enough available;
- not interested in student and his/her work;
- not giving enough guidance;
- not competent in the research field or methodology;
- not enough feedback on written work;
- not enough interaction with other faculty staff and students.



**Self-perception questionnaire****HO 1**

1. How do you see yourself as an academic?
2. What are your strengths?
3. In 10 years' time, where would you like to be in your career?
4. What is your career goal?
5. What are the (a) skills and (b) experiences you need to achieve 3 and 4?
  - 3(a)
  - 3(b)
  - 4(a)
  - 4(b)
6. What are the barriers to achieving 3 and 4?
7. What are your strengths as a researcher?

## Mentors – What are they? What do they do?

HO 2a

*A personal perspective by Ingrid Moses*

### What are mentors?

There is a whole literature on mentoring, particularly in university and business environments. Also there is literature, particularly biographies and autobiographies, where we learn of the impact one person had on a writer, teacher, politician, painter – on someone with achievements.

The first qualification/characteristic seems to be:

- the mentor is a person of achievement.

The second is that:

- this person counsels, advises, influences, nurtures normally younger people who aspire to achievements in the same area.

The third is that:

- the relationship is a mutual and consensual one.

A senior person may choose a younger one, or a younger person may adopt an older one. There is empathy, shared ideals, shared values, perhaps a shared vision. But there is no contract, no claimable right to advice or assistance. Mentoring is a voluntary activity based on mutual respect and it is essentially informal.

### What do mentors do?

**Power:** mentors may not share power. But they do provide insights into power, and they will share that knowledge which bestows some power: information; insights; access to networks; access to opportunities to develop, mature, learn new skills; thus they will empower those they mentor. They will give constructive feedback on performance. They will watch over you and your development.

**Politics:** mentors will explain how the system works, whatever system one is in; they will smooth the path, provide or point to opportunities, discuss qualities one may need to develop in order to influence and change others and situations.

**Finance:** mentors may not share money. But they do provide insights into the mechanisms, politics and how to get a share of the cake.

**This is how I see mentors:** I had a mentor myself, the director of the institute I worked in at the University of Queensland. I was then a graduate assistant, i.e. not an academic staff member. He listened to the ideas of all of his staff and if you could make a case, he would support it. I was not the only one who got launched on a professional career by him. But not all of his staff progressed equally. Some were not interested in putting forward ideas, in going the extra mile, and he would not be interested in people who showed no spark and energy.

Our relationship worked like this: I would put forward an idea, he would react to my ideas and share his experience and wisdom. After a while, he started valuing my ideas, indeed my critical feedback on his ideas. We engaged in intellectual discourse.

I had not had any research grants. He made me a junior partner. This is very important, as for many grant applications the applicant has to have a successful research record. So how can one get started? I 'piggy-backed'

## Mentors – What are they? What do they do?

## HO 2b

on his reputation and when I got established, we were able to reverse the order and I could be the first named applicant.

He read all of my writings, gave me valuable feedback and so launched me on a successful writing career.

He introduced me to a higher education network through conference funding, joint projects, providing references.

When he retired and I had become director of an institute in another university, I was able to employ him as a consultant. Our relationship clearly became more even over time, and because of the age differences, the scale of what one could do for each other changed. But he will always be wiser and more experienced than I am. Our friendship is 18 years old, and though he has been retired for 10 years in another state in Australia, we – indeed our families – still keep regular contact.

It was only when he retired that either of us named our relationship as a mentoring one. It did not start like this. It evolved.

I want to contrast this with **role models**. I was professionally a late starter like many women are – I got my first one-year contract lectureship at the age of 39, did my PhD while working full time with two children at school and was 45 when I received it. I knew very few university women. So I cannot say I had a role model at the university of Queensland. But because of my visibility at the university in working in a Centre for Learning and Teaching, I actually served as role model for some of my women colleagues who were also still on the way up professionally and also had families. But I never knew that until I left to go to the University of Technology, Sydney, to set up a centre there, and people expressed to me their disappointment that their role model was leaving.

The difference, clearly, is that we can adopt a role model without communicating this to the person. We see her as an example of what can be done, or of alternative ways of doing things. It is not necessarily a mutual relationship.

Recently, I had lunch with one of my former nursing colleagues from UTS who was here for a nursing conference. She expressed her gratitude for my having helped her in her work, her career, indeed supporting her worth and claim as an excellent teacher. She said I had been a mentor to her. Because of our continuous association over a number of years she saw it like this. I had not seen it like this, because I had not actually singled her out, even though she is a very gifted person and we had a long-standing relationship. But I was the Director of a Centre for Learning and Teaching and it was my job to support staff.

This leads me to another distinction, that is **academic leadership, good management**.

I saw nurturing, assisting, supporting, stimulating, challenging, setting high standards, giving feedback, looking for opportunities for development, discussing career aspirations, advising etc. as functions of a group leader or head in academic and administrative sections. It is part and parcel, indeed one of the most important aspects, of work of all people in what one may call supervisory roles.

Thinking back to my time at UTS I know that as a centre director I had tried to be an exemplary academic leader. All of the centre staff were

**Mentors – What are they? What do they do?****HO 2c**

better off at the end than when they came to the Centre – some had got promoted, others reclassified, others had got different fractional arrangements which enabled them to develop their life and interests outside the university. All had been encouraged to grow intellectually and personally. But was that mentoring? Was I a role model? I thought I was providing academic leadership and building a team.

I see mentoring basically as an activity which is spontaneous. But one can facilitate mentoring arrangements and women can also organise their own scheme. I strongly believe, though, that no formal mentoring scheme will work if the environment is not conducive to it.

I believe that as a group of responsible university members we need to look at the actual work ethos and practice, not the rhetoric, and by exemplar we need to build a supporting work environment.

## Selecting the research topic

## HO 3a

*(This section was originally written for research students not supervisors or facilitators. But either group can adapt it for their purpose.)*

In the humanities and social sciences, students normally allocate an area of study for their research project at Honours, Masters and PhD level; indeed, defining the research topic is usually part of higher degree study and results from extensive literature review. In natural and applied sciences, students can often choose from a range of topics available which fit into research being undertaken by staff. The British Swinnerton-Dyer Report on Postgraduate Education (1982) recommends that:

*The choice of research topics should be heavily influenced by staff and, where appropriate, also from outside the academic institution; this is to ensure that the topic is a suitable subject for research training, that it is likely to prove a rewarding investigation, that it is of practical benefit where this is possible, that competent supervision is available and that the work can be completed within the time available.*

The importance of a suitable research topic for the timely and successful completion of a thesis is self-evident. Whether the supervisor offers topics, the student approaches the department or an individual with an area already chosen, or the topic emerges out of consultation between supervisor and student, the following can guide your judgement on the suitability of the topic.

(Clearly, the same considerations apply to choosing one's own research field and research questions. Faculty may also ponder the suggestions below and apply the checklist in 5–8 to their own topic for research. Participants may wish to use these questions in discussion of research topics with their mentor(s) or group participants.)

If no topic has been chosen:

1. Discuss with the student areas of general interest.
2. Ask the student to read in the field to get ideas, e.g.
  - (a) theses and dissertations
  - (b) articles in journals
  - (c) books and book reviews.
3. React to the student's suggestions and discuss their feasibility, if uncertain, with colleagues and other experts in the field.

Once a topic (or topics) has been contemplated:

4. Ask the student to convince you of the novelty of the topic.
5. Consider the feasibility of the research proposed.
  - (a) If the student wants to pursue a particular research design, is there opportunity to do so with this particular topic?
  - (b) Does the student have the necessary skills and knowledge or must new ones be developed before or during the course of research?
  - (c) Are data and information available to the student and is access possible on a continuous and not too cumbersome or costly basis?
  - (d) Is ethical clearance, if necessary, likely to be obtained?
  - (e) Are resources available to the student adequate to ensure successful completion of the project?
  - (f) Is it possible to complete the research in the time available? Is the topic manageable in size?

**Selecting the research topic****HO 3b**

If the project is feasible, chances that the student will complete it are increased; if aspects of the proposal are unsatisfactory, the student should attempt to redefine the topic unless, of course, a conscious decision is made to prolong study time because new skills have to be learned (e.g. computing, languages), or because the type of research project which the student wants to undertake is long term. In that case, the student might be well advised to enrol part time.

6. Discuss with the student the value of the research.
  - (a) Will the findings extend knowledge in this field?
  - (b) Will they be of more than trivial value?
  - (c) Will they have practical implications?
  - (d) If case studies are attempted, will one be able to generalise from them?
7. In experimental studies, are negative outcomes acceptable, or will negative outcomes mean that there is no basis for the thesis?
8. Is the scope of research appropriate to the degree? Is there opportunity to provide valuable insights? Does the topic have the potential to make an original contribution?

If the student chooses a topic from a list provided by you, then clearly you need to have determined the suitability of each topic beforehand, and to update the list in the light of progress in your research.

(Source: Moses, I. (1985, reprint 1995) *Supervising Postgraduates*, HERDSA Green Guide No. 3, pp. 9–11.)



## Managing the project

## HO 4

Other aspects of planning have more to do with the management of the research project than with the content of it. Howard and Sharp (1983) present in detail one such method, 'network planning' or 'critical path analysis'. Here are the steps:

1. Determine the objectives.
2. Identify and list (in any order) the activities that need to be carried out.
3. Order the activities. Establish for every activity those activities which precede it, those which follow it, and those which may be undertaken concurrently.
4. Draw the network.
5. Estimate the time needed to complete each activity.
6. Analyse the network using the completion times.
7. Check the resources and draw up the schedule.
8. Re-plan as necessary. By following these steps, you will have achieved clarity and perspective on the following:
  - your own aims and objectives;
  - the activities required to meet these;
  - the various critical points or 'milestones' where progress can be reviewed by you and the plan, if necessary, adjusted;
  - time estimates for reaching the critical point (some of the activities can be done simultaneously, while others depend on the successful completion of preceding ones);
  - resources available and needed;
  - priorities and progress.

This planning approach is useful at the beginning of the research project, but can also be employed at any other stage.

(Adapted from: Moses, I. (1985, reprint 1995) *Supervising Postgraduates*, HERDSA Green Guide No. 3, pp. 13–14.)

**Common misbeliefs about writing****HO 5**

1. *Writing is inherently difficult.* In fact, good writing is not riskier and no less important than collegial conversation. Like speaking, writing does not need to be perfect to be effective and satisfying. But writing, more than speaking, offers a unique chance to 'see what you think' and, in turn, to clarify your thinking.
2. *Good writing must be original.* In fact, little, if any, of what we think or write is truly original. What nonetheless makes 'our' ideas worth communicating can lie in the novel ways we present them or in human frailty; readers can be retold even the most interesting ideas after a brief period of forgetting.
3. *Good writing must be perfect, preferably in a single draft.* In fact, the more successful the writer, the greater the likelihood that she/he revises manuscripts. And, in fact, successful authors are more likely to realise that perfect first drafts are perhaps undesirable.
4. *Good writing must be spontaneous.* This is the misbelief that writers should await inspiration. In fact, the most productive and satisfying way to write is habitually, regardless of mood or inspiration. Writers who overvalue spontaneity tend to postpone writing and, if they write at all, to work in binges that associate writing with fatigue. Writers who write regularly, in reasonable amounts, benefit in greater productivity and creativity.
5. *Good writing must proceed quickly.* Procrastination goes hand in hand with impatience. The very writers who delay writing often suppose that, properly done, writing must proceed quickly and effortlessly.

An expanded version of this handout appears in Boice (1985).

(Source: Boice, R. (1987) 'A program for facilitating scholarly writing', *Higher Education Research and Development*, Vol. 6, No. 1, p. 11.)

## Benefits of publication

## HO 6

The need to communicate, to report discoveries and findings, to share insights and to learn from others is an indispensable element of scholarship. The results of your research amount to nothing unless they can be successfully disseminated. Publication completes the research act. However, not all academics see journal publishing in a positive light. Many experience intense peer and institutional pressures to publish for what are, in reality, spurious reasons. Others think that the recent growth in electronic and microform alternatives make the academic journal an anachronism. At present, print media show no signs of imminent demise. Indeed the reverse seems to be the case because of the simplicity, reliability and portability of the printed page. It is well, then, to reiterate the benefits of publication. Here are 10 good reasons for publishing.

1. Publication demands highly disciplined writing, and therefore clear and precise thinking. Writing itself facilitates thinking, helping you to clarify your logic. Reviewers' reports, even if negative, can provide you with valuable new insights into a problem.
2. Publication places your work under open professional scrutiny. This is one of the hallmarks of academic inquiry.
3. Publication contributes to the scholarly literature in a field. In both research and teaching, academics set great store by published research findings.
4. Publication reaches a wide international audience. Circulations range from 500 to 30,000 depending on the journal, with many in the 2,000 to 5,000 range. (To find out the circulation of any journal published in the US, look for the annual declaration printed in one of the issues.) Actual readership is, of course, usually considerably larger than the circulation.
5. Quality journals are usually widely and professionally indexed or abstracted. This gives even non-subscribers access to your work. Furthermore, you can see how your article is being used, and the impact it has, by consulting citation indexes.
6. Publication identifies you with a domain of research or scholarship, and facilitates contact with other professionals working in the same area, even if they have published little themselves.
7. Publication in journals is economical. Apart from research costs themselves, the costs to an author of actually producing the journal article are very low compared with dissemination through conferences or through preprints or technical reports produced in your department and mailed out.
8. Publications improve your academic credibility with students. They see you as a person who has something scholarly to offer, not as a mere retailer of other people's ideas.
9. Publication enhances your academic reputation, that of your department and that of your college or university. Although there are no direct financial rewards in publishing an article, there are considerable indirect rewards in terms of one's career: appointment, promotion or tenure.
10. Publication is FUN; you can get a lot of personal satisfaction out of it.

(Source: Sadler, D.R. (1990) *Up the Publication Road*, HERDSA Green Guide No 2, 2nd ed, pp. 1–2.)

## Writing questionnaire

HO 7

- Why do you want to write?
- Under which circumstances do you write best/most?
- What prevents you from writing as much as you wish?
- What could you learn from successful writers?

**Control principles for writing****HO 8**

1. Establish one or a few regular places in which you will do all serious writing, places where you do nothing but serious writing.
2. Make regular writing sites sacred in the sense that no other temptations such as magazines, newspapers, novels can be on site.
3. Resist the temptation of doing other things first, such as cleaning up one's writing site.
4. Arrange writing sites to minimise noisy distractions.
5. Limit social interruptions during writing times by:
  - (a) closing the door;
  - (b) posting a writing schedule on your closed door that requests visitors to limit interruptions to brief (e.g. 10 seconds) essential messages;
  - (c) unplugging the phone; and
  - (d) enlisting significant others and colleagues as enforcers by asking them to help head off potential disruptions (including, of course, themselves).
6. Find another writer to join you for mutually quiet periods of work.
7. Make your writing site comfortable (e.g. write or hold the word processor keyboard in a recliner chair).
8. Make a more regular, recurrent activity (e.g. phone calls to friends) contingent on writing for a minimum period of time first.
9. Write while you are fresh. Schedule other, less mentally demanding tasks for times of the day when you're less alert and energetic.
10. Avoid writing in binges. Abandon the notion that writing is best done in large, undisrupted blocks of time. Waiting for such times does more than reinforce procrastination; it demands excessive warm-up times and it encourages you to write until you are fatigued.
11. Write in small, regular amounts; 30-minute sessions may be more than enough for most academics.
12. Schedule writing tasks so that you plan to work on specific, finishable units of writing in each session.
13. Plan beyond daily goals. Schedule the stages of a manuscript in terms of weeks, again with specifiable and measurable goals, so that you'll feel clear about where you're headed and about knowing when you've done enough.
14. Share your writing with supportive, constructive friends before you feel ready to go public. Ask your readers to appraise your writing in its imperfect and formative stages; they will feel less judgemental and more inclined to offer advice for changes than they would with 'finished' drafts.

(Source: Boice, R. (1987) 'A Program for facilitating scholarly writing', *Higher Education Research and Development*, Vol. 6, No. 1, p.16.)

**Control principles for my writing****HO 9**

1. Place where I write.
2. Times when I write.
3. Schedule for the next writing task.
4. Colleagues whom I will ask to give me feedback.

**Code of conduct for the responsible practice of research****HO 10a****1. General ethical considerations**

It is a basic assumption of institutions conducting research that their staff members are committed to high standards of professional conduct. Research workers have a duty to ensure that their work enhances the good name of the institution and the profession to which they belong.

Research workers should only participate in work which conforms to accepted ethical standards and which they are competent to perform. When in doubt they should seek assistance with their research from their colleagues or peers. Debate on and criticism of research work are essential parts of the research process.

Institutions and research workers have a responsibility to ensure the safety of all those associated with the research. It is also essential that the design of projects takes account of any relevant ethical guidelines.

If data of a confidential nature is obtained, for example from individual patient records or certain questionnaires, confidentiality must be observed and research workers must not use such information for their own personal advantage or that of a third party. In general, however, research results and methods should be open to scrutiny by colleagues within the institution and, through appropriate publication, by the profession at large.

Secrecy may be necessary for a limited period in the case of contract research.

**2. Specific ethical considerations****(a) Retention of data**

Sound research procedures entail the discussion of data and research methods with colleagues. Discussion may also occur well after the research is complete, often because of interest following publication. The data may need to be available in the event of a dispute, from a source relatively independent of the adversaries in the dispute.

It is the responsibility of the individual researcher, and the faculty, school or research centre in which the data was generated, to ensure that it is recorded in a durable and appropriately referenced form, for a period of no less than five years.

It is acknowledged that data obtained from limited access databases or in a contract project may not be able to be retained. In such cases, a written indication of the location of the original data or key information regarding the limited access database from which it was extracted must be kept in the department or research unit.

While individual researchers should be able to hold copies of the data for their own use, they are advised that retention of data solely by the individual research worker provides little protection to the research worker or the institution in the event of an allegation of falsification of data.

**(b) Publication and authorship**

It is essential that all parties responsible for bringing about a piece of research are duly acknowledged for their contribution in any publications or reports to emanate from the research. This is particularly important for senior staff, who have a responsibility to foster a positive environment for junior research staff by sharing the credit for joint research achievement.

## Code of conduct for the responsible practice of research HO 10b

Where there is more than one author of a publication, one author (by agreement among the authors) should formally accept overall responsibility for the entire publication.

The minimum requirement for authorship of a publication should be participation in conceiving, executing or interpreting at least part of the research reported. 'Honorary authorship' occurs when a person is listed as an author of a publication when they have not participated in any substantial way in the conception or interpretation of at least part of the work described in the publication. 'Honorary authorship' is unacceptable.

Due recognition of all participants is a part of a proper research process. Authors must ensure that the work of all participants in the research – research students/trainees, research assistants and technical officers, whether paid or voluntary – is properly acknowledged.

It is the responsibility of the senior author, or the author taking overall responsibility for the publication, to ensure that all nominated authors each have read the final paper, that each meets the minimum requirements for authorship and that there are no other persons who meet the minimum requirements for authorship but who have not been included among the authors.

Publication of multiple papers based on the same set(s) or sub-set(s) of data is improper unless there is full cross-referencing (for example, by reference to a preliminary publication at the time of publication of the complete work which grew from it). Simultaneous submission to more than one journal or publisher of material based on the same set(s) or sub-set(s) of data should be disclosed at the time of submission.

### ***(c) The role of research supervisors***

Supervision of each research student/trainee (including honours, masters and doctoral students, and junior post-doctoral staff) should be assigned to a specific, responsible and appropriately qualified senior research worker. The responsibility for implementing this resides with the Faculty Higher Degree Committees or, in the case of PhD candidates, with the University Higher Degrees and Scholarships Committee.

The ratio of research students/trainees to supervisors should be small enough to ensure effective interaction, as well as effective supervision of the research at all stages.

Normally, at the University of Canberra, full time academic staff members would be expected to supervise no more than five EFTSU (Effective Full Time Student Units). This limit should be adopted as faculty policy by the Faculty Higher Degrees Committees.

Research supervisors must advise each research student/trainee of applicable government and institutional guidelines for the conduct of research, including those covering ethical requirements for studies on human or animal subjects, and requirements for the use of potentially hazardous agents.

Research supervisors should be the primary source of guidance to research students/trainees in all matters of sound research practice.



**Code of conduct for the responsible practice of research HO 10c**

As far as possible, research supervisors should ensure that the work submitted by research students/trainees is their own and that, where there is data, it is valid. For more detailed guidelines, refer to the University's Guidelines for Supervision of Research Students.

The head of the research unit should be personally involved in active research supervision and observe the research activities of those for whom he or she is responsible. Professional relationships should be encouraged at all times. In particular, there should be wide discussion of the work of all individuals by their peers.

**(d) Disclosure of potential conflict of interest**

Disclosure of any potential conflict of interest is essential for the responsible conduct of research.

Conflicts of interest of all participants or proposed participants in research must be disclosed at the time of seeking permission from the university to apply for research funding.

Such disclosure should include a research worker's affiliation with, or financial involvement in, any organisation or entity with a direct interest in the subject matter of the research, or in the provision of materials for the research. These disclosures must cover the full range of interests, including benefits in kind such as the provision of materials or facilities for the research, and the support of individuals through the provision of benefits (for example, travel and accommodation expenses to attend conferences). They should convey such interests to the persons responsible for institutional research management, to the editors of journals to which papers are submitted (some editors already require this) and to bodies from which funds are sought.

**3. Special needs in different disciplines**

In some disciplines there will be special areas which require regulation, for example, animal and human experimentation (including interviewing and surveying people) and the handling of hazardous materials. The rules for these activities should form part of the general code of ethics for each discipline. For further information, refer to the guidelines governing the University Human Ethics Committee and the Animal Ethics Committee.

(Source: *Guidelines for Responsible Practice in Research and Dealing with Problems of Research Misconduct*, University of Canberra, Academic Services Division, June 1994.)

**Supervising research students 1****HO 11**

Please note down the three aspects of supervision which are of greatest concern to you. Indicate whether they originate in the Institution (I), the Department (D), with yourself (S) or the Student (St) (i.e. whose problems they are).

1.

2.

3.

**Supervising research students 2****HO 12**

Please note down the three aspects of supervision which are of greatest concern to you and which you would like to see discussed in the workshop.

1.

2.

3.

## The role of supervisor

## HO 13

### Questions for discussion:

1. What is the supervisor's role in the selection of the topic?  
What considerations need the supervisor bear in mind?
2. What can the supervisor do to ensure student progress?
3. How often should meetings between supervisor and student take place?  
How might these meetings be structured?
4. How can research students get feedback on their work?
5. What is the supervisor's role in the writing process?
6. What are the advantages and disadvantages of joint supervision?

## Role perception rating scale

HO 14

Read each pair of statements below. Each expresses a standpoint supervisors may take. You may not agree fully with either of the statements. Therefore, please estimate your position and mark it on the scale. For example, if you believe very strongly that supervisors should select the research topic you would circle 1 on the scale.

### Topic/course of study

- |  |                   |   |
|--|-------------------|---|
| 1. It is the supervisor's responsibility to select a promising topic   | 1   2   3   4   5 | It is the student's responsibility to select a promising topic  |
| 2. In the end, it is up to the supervisor to decide which theoretical frame of reference is most appropriate                     | 1   2   3   4   5 | Students have a right to choose their own theoretical standpoint even if it conflicts with the supervisor's |
| 3. The supervisor should direct the student in the development of an appropriate programme of research and study and give advice | 1   2   3   4   5 | The supervisor should act mainly as a sounding board for the student's ideas                                |

### Contact/involvement

- |   |                   |  |
|---|-------------------|--|
| 4. Staff-student relationships are purely professional and personal matters should not intrude  | 1   2   3   4   5 | Close personal relationships are essential for successful supervision  |
| 5. The supervisor should initiate frequent meetings with the student                            | 1   2   3   4   5 | It is up to the student to decide when s/he wants meetings with the supervisor   |
| 6. The supervisor should know at all times at which problems the student is working             | 1   2   3   4   5 | Students should have the opportunity to find their own way without having to account for how they spend their time                     |
| 7. The supervisor should terminate supervision if s/he thinks the project is beyond the student | 1   2   3   4   5 | The supervisor should support the student right through until the thesis has been submitted, regardless of his/her opinion of the work |

### The thesis

- |  |                   |  |
|--|-------------------|--|
| 8. The supervisor should ensure that the thesis is finished not much later than the minimum period       | 1   2   3   4   5 | As long as the student works steadily s/he can take as long as s/he needs to finish the work                 |
| 9. The supervisor has direct responsibility for the standard of the thesis                               | 1   2   3   4   5 | The supervisor advises only and leaves all decisions concerning content, format and standards to the student |
| 10. The supervisor should insist on seeing drafts of every section of the thesis in order to review them | 1   2   3   4   5 | It is up to the student to ask for constructive criticism from the supervisor                                |
| 11. The supervisor should assist in the actual writing of the thesis if the student has difficulties     | 1   2   3   4   5 | The supervisor should be very wary of contributing too much to the thesis                                    |

## Discussion summary for participants

HO 15a

The suggestions listed below were made in our workshop on supervision. It was clear in the workshops that staff have very different individual educational philosophies, often focusing on or derived from their own experience. We recognised different disciplinary conventions, but also that institutional expectations have to be reconciled with individual practice, that a knowledge of students needs to be fostered as well as knowledge of oneself. In the discussions concerning the supervisor's role in the selection of the topic our own supervision style, the importance of own and student expertise, of our own and student interest was addressed as well as worth and value of research. In a supervised research training programme there is joint responsibility on progress, hence a lot of attention was paid to ensuring progress and providing feedback.

### The Role of Supervisor

#### ***1. The supervisor's role in the selection of topic; considerations the supervisor needs to bear in mind***

##### **Questions to ask oneself**

- Are adequate resources available? Is the project feasible?
- What is the likelihood that the project will bear fruit within reasonable time?
- Is the topic the student suggested worthwhile, non-trivial?
- Does the topic have enough scope for a PhD thesis?
- Do I have knowledge of the area the student wants to work in, and of what work has been done?
- Does the student's background fit the topic chosen?
- Should the student read widely before narrowing down the field of study?
- Can I suggest ways of improving the student's knowledge or are there courses available to take before the student embarks on the project?
- Is the student familiar enough with the department to choose a supervisor?
- Is the student interested in the topic I am suggesting?
- Can I suggest a range of topics to the student, if necessary, so that the student may choose?
- Am I interested in the topic the student is suggesting?
- Is the student's suggested topic relevant to the current research interests of the department?
- Is the topic in an area that requires research?

We agreed that the selection of the topic should occur by negotiation and interaction between supervisor and student, taking into consideration student's and supervisor's interest and expertise, and availability of resources. The topic need not be defined at the start of the programme, but should be after initial work, e.g. pilot project, literature review(s).

#### ***2. Strategies the supervisor can employ to ensure student progress***

- Assist the student with planning the research project and progress with deadlines and checkpoints for review – a structured programme.
- Work out a 'contract' with the student related to the plan and specifying assistance needed.

**Discussion summary for participants****HO 15b**

- Assist the student in setting up the programme and refer him/her to relevant sources (including people).
- Within the first six months, ask the student to give a talk to a conference, a professional meeting or the department.
- Regular progress meetings of supervisor with students in research group for peer support and practice in talking about the research.
- Encourage students to keep a log book and /or list of journal reading and their evaluation (journal club).
- Encourage written progress reports as an internal publication.
- Encourage early writing for publication.
- Establish a regular meeting pattern, and be generally available.
- Ask students to report (informally) on problems – as a problem-solving session.
- Ask for detailed verbal reports in meeting.
- Keep an eye on students' time management (e.g. whether the student is doing too much tutoring or too much outside work).
- Get to know the student and his/her needs in terms of structure needed.
- Watch that you do not try to keep too much control.
- Give rapid feedback on written work submitted.
- Set deadlines for those who 'need' them.
- Encourage students to get feedback from each other and to interact with staff and other students.

**3. Frequency and structure of meetings**

- Regularly, but at varying times – make it clear to the student that he/she has a right to meet with you.
- Perhaps have lunch with the student for an informal meeting, followed by a formal meeting.
- At the end of one meeting negotiate a time for the next meeting.
- Prepare for meetings by asking the student for an agenda and discussion points, or written work to give feedback on.
- Structure meetings, e.g. by starting off with a discussion of reading or experiments the student has done.
- Give rapid feedback on work submitted.
- Keep notes of meetings, ask the student to write up the discussion and give you a copy.
- The student's log-book may yield points for discussion.

**4. Feedback to students**

- Regular discussions with supervisor.
- Progress reports.
- Postgraduate student colloquia.
- Staff-student seminars.
- Conference attendance and presentation of paper.
- Early writing of literature review, draft chapters, etc.
- Other students – encourage peer review.
- Submission of papers for journals.

**Discussion summary for participants****HO 15c****5. Supervisor's role in writing process**

- Encourage it – ensure the student starts early and finishes in time.
- Encourage the student to keep log-book for later reference and early writing.
- Encourage the student to refer to reference books on structuring theses and on language, style, etc.
- Give critical and constructive feedback on early drafts, and reports regarding style, structure, argument, analysis etc.
- Assess overall structure of the thesis, its logic.
- Ensure that expression is of sufficiently high standard.
- Refer the student to get over 'writing block' if setting manageable writing tasks.
- Go through the completed draft thesis for final criticism.

(Source: Moses, I. 'Workshops for supervisors' in I. Moses (ed.) *Research Training and Supervision*, Proceedings from the ARC and AVCC sponsored conference, May 1992, AVCC and NBEET, Canberra, pp. 31–33.)



## Departmental provisions necessary for an environment conducive to graduate study

HO 16

### Questions for discussion:

1. What facilities, provisions, assistance do staff need to be effective supervisors?
2. What facilities, provisions, assistance from the department do students need to be effective researchers?
3. What departmental structures can assist in providing an environment that enables students to finish their degrees with maximum benefit to themselves and to the department?
4. What special provisions are needed for part-time students?

(Source: Moses, I. (1992) 'Workshops for supervisors', in I. Moses (ed.) *Research Training and Supervision*, ARC/AVCC Canberra.)

## Departmental and institutional facilities and processes

HO 17a

Supervisors work in a context. They, like academics in their undergraduate teaching and research, need departmental and institutional support – a climate which encourages high standards, accountability, responsibility, creativity, resources, and administrative procedures which facilitate students' progress and interaction with others.

In the conference, five syndicate groups discussed a set of questions which aimed to tap into institutions' or departments' good practices and provisions.

1. What facilities, provisions and assistance do staff need to be effective supervisors?
2. What facilities, provisions and assistance from the department and/or institution do research students need to be effective students?
3. What departmental structures can assist in providing an environment that enables students to finish their degrees with maximum benefit to themselves and to the department?
4. What special provisions are needed for part-time students?
5. What special provisions are needed for non-native English speaking students?

The summary below is based on the notes provided by each group and should be read in conjunction with the chapter 'Good supervisory practices'. Responses to questions 1, 2 and 3 have been combined.

### **Facilities, provisions and assistance to staff**

#### ***Time***

Supervision is a very time intensive task and this needs to be acknowledged in the teaching allocations within departments. Time is a very scarce resource and many staff feel that there is very little thinking time left. The pressure of scheduled obligations is seen to affect all work negatively. Reduced teaching loads in disciplines and departments with a heavy teaching load will ensure that supervisors have more time for effective supervision.

#### ***Supervisor development***

Most supervisors learn how to supervise by trial and error. Senior academics within a department might well take junior academics or new supervisors as apprentices 'under their wing' in joint supervision arrangements; they might be mentors to less experienced staff. Alternatively, a department or faculty should have arrangements for the induction of new staff into supervisory practice or encourage (some would argue, require) staff to make use of institutional staff development arrangements.

Mentoring and staff development opportunities are of particular importance to staff from the former CAE sector where research supervision was exercised by only few staff. Generally, supervisors need to be active researchers and should have post-doctoral research experience.

#### ***Meetings, seminars***

If teaching is a private activity, supervision is more so. Supervisors need the opportunity to share with their colleagues problems, issues and strategies. Team meetings for discussion of the supervisory process in contrast to the project content will enhance sensitivity to students' needs.

**Departmental and institutional facilities and processes****HO 17b**

Seminars for supervisors should be conducted at departmental level, or where the group would be too small at faculty level. Such seminars should be conducted for supervisors of Honours, Masters and PhD students, both separately and jointly.

But seminars in which research students present their work to staff and peers also help supervisors in their task by making available a greater pool of expertise and feedback. In the biological sciences it was suggested that students present a preliminary seminar to focus the goals of the project, i.e. the hypothesis to be tested, the methodology to be used. This allows all staff and students to question and to contribute. While resources need to be reassessed at this stage, they should have been considered first when the topic was accepted.

***University rules***

Supervisors also need to know the university's and/or the department's guidelines for supervisors. These should be phrased within the framework provided by the AVCC's Code. They also need to understand the implications of the institutional rules on intellectual property arrangements, on joint authorship, and on ethical clearance of student projects. Such procedures are preferably explained in a group situation, where clarification and discussion is encouraged. Easy access to the more technical information of admission to degree, presentation of thesis, selection of examiners, etc., will facilitate adherence to these regulations. Institutions need to have clear dispute resolution procedures, and supervisors and students need to be aware of them.

***Research culture***

Departments and institutions need to develop a research culture where individual and group research is valued, encouraged and supported. This affects both supervisors and students. In such an intellectually alive environment, students will be able to seek advice from all researchers in the department, not just their appointed supervisor(s).

For many departments the question arises as to how many diverse projects they can support. For intellectual interaction and peer support for both supervisors and students, concentration into areas of research, and a critical mass of other researchers in an area should be encouraged.

The head of department can significantly influence the research ethos of a department and needs to give leadership in supporting graduate studies.

***Departmental and institutional administrative support***

Beside the informal support networks within departments and institutions, formal review structures are necessary. Supervisory panels, committees of supervisors, departmental and institutional research degree committees, and statements of rights and obligations provide the framework for individuals' research studies and supervision and ensure that research candidates and their supervisors are supported and the process monitored, and that university policies and procedures are followed.

Similarly at institutional level, clear and efficient administrative procedures, e.g. concerning admission, half-yearly or annual reports, and the selection and notification of examiners, facilitate the graduate study process.

## Departmental and institutional facilities and processes

HO 17c

### *Infrastructure support*

Departments and institutions need to make available infrastructure support for research degree studies – funding for incidentals, field trips, and conferences; continuity of research funding; computing, library, space, equipment; secretarial and editorial support; and technical support. At institutional level, funding arrangements have to be such that postgraduate students can be supported; separate budget allocations may be needed. The same applies at departmental level.

### *Structures, facilities, provisions and assistance to students*

Much of what helps supervisors to be effective also helps students to be effective. Hence, the content of the above section and this one overlap. Again, there are disciplinary differences, with the equipment-based field of study more concerned with the availability and effective sharing of resources through related projects, and suggesting more frequent meetings and reporting. The very first piece of assistance to research students could be an assessment of student potential and motivation, and agreement on clear conditions and agreements about expectations, responsibilities and 'rights'.

### *Supervisors*

Departments need to ensure that each supervisor assigned to research students has the qualifications and ability to supervise effectively. Students need access to supervisors on a regular basis with 'quality' time, i.e. meetings have to be scheduled. Departments need to ensure that this happens by discussing and enforcing university or departmental guidelines for supervisors. In particular, students' expectations for quick feedback on their work need to be legitimised.

### *Infrastructure*

Departments are obliged to provide sufficient infrastructure and funding for the whole of each student's research study. This means that students have a work space in the department, have access to needed equipment, library provisions, audio-visual facilities, technical support and workshop assistance. Departments should allocate an allowance for each candidate for necessary expenditure depending on the disciplinary area, e.g. library searches, copying, local travel to other libraries, conference and travel support for research students in the humanities. Students in other areas may need funding for fieldwork and experimental work, for conferences and visits to other research teams or laboratories. Where students are not funded by a scholarship they also need access to casual tutoring opportunities.

### *Departmental ethos*

Research students need to experience academic/research and personal support from their supervisor(s) and other departmental staff. Peer learning and support arrangements, access to other scientists, group support, and mentor systems can all contribute to effective graduate study. Informal interaction can be encouraged by having a common room for staff and postgraduates, unless students wish to have their own. Co-operation among academic and support staff, whether technical, laboratory or office, should be encouraged and the importance of the

**Departmental and institutional facilities and processes****HO 17d**

non-academic contribution to effective graduate study acknowledged. Research students, if regarded as valuable members of the department, would be represented on relevant departmental committees and contribute to policy formulation.

Ideally, there should be in the department a critical mass of researchers in similar areas. Each student should be ensured of sufficient intellectual resources apart from adequate infrastructure. In some disciplines there is strong support for a departmental research management plan which includes graduate students and their work.

Students joining the department need to have an induction into the department by their supervisor(s) or by the head of the department where expectations about length of candidature, resource support, standards and other issues are clarified.

There is no consensus about whether graduate courses as a formal part of a PhD programme would act as a support and would function to broaden students' knowledge. But seminars on research methodologies help students to make informed choices; other seminars should be arranged as the need arises. Seminars in which staff and student present research in progress provide for feedback and support, as well as broadening students' understanding of other related areas of research. In addition, they establish the value of research students' contribution to the departmental research ethos and research output. The department may also hold a postgraduate open day with poster session and social interactions to which undergraduate students are also invited. Such cross-level interaction promotes research in the department.

Apart from formal seminars and functions, social interaction contributes to an atmosphere of trust and good will.

A graduate school or centre will create a postgraduate culture in which research is valued and supported. But informal networks of postgraduate students and supervisors can also provide for peer support. Women research students in non-traditional areas in particular may need such informal support.

Students want and need linkages to other researchers outside the department, and departmental members, not only supervisors, can assist in identifying relevant national and international conferences and research teams. Facilitating students' access to such networks helps them to appreciate future research opportunities and to envisage a research career.

***Quality assurance***

There should be a graduate studies co-ordinator at faculty/school level and honours co-ordinators to give support to individual students and to arrange seminars and other organisational matters concerning graduate studies. Graduate studies committees at faculty and university level are needed to monitor processes and how staff are meeting guidelines.

Supervisory committees akin to the North American model are becoming more frequent. While their value was acknowledged, it was suggested that committees could be established which included students to give peer support.

## Departmental and institutional facilities and processes

HO 17e

A review of completion times should be undertaken at both departmental and institutional levels. One suggestion was to withdraw funding to a department and candidate when the normal and agreed time for the completion of the thesis had been exceeded without acceptable reason.

### ***Departmental and institutional guidelines and procedures***

Students need clear guidelines and information on becoming and being a research student at a particular university. They need access to such information booklets before enrolling. Reporting mechanisms need to be established to help students realise the need for planning and keeping to deadlines. Half-yearly reports on student progress written by student and supervisor and lodged with the university's research degree committee hold both supervisors and department accountable, and indeed also students. Students need to be made aware of all institutional rules affecting their studies and status, including guidelines concerning the thesis and grievance procedures.

### ***Support systems***

Administrative support and advice for students is important, e.g. advice to students that they need to apply for HECS exemptions by a certain date; that they need to fill in (half) yearly progress reports; that they need to observe enrolment deadlines even when on fieldwork. Students off campus on fieldwork or in industry are particularly affected by lack of administrative support.

Students need access to counselling services. They may also need assistance with English, with computing, with the best use of the library, and with thesis production. Such assistance is usually provided by the university or the students' association.

Students may also need access to childcare.

Career advice may be offered by the university but is also seen as part of a department's or supervisor's responsibility.

### ***Special provisions for part-time students***

Most provisions for full-time students also apply to part-time students. But clearly, part-time students need special considerations. The importance of contact with other students and with staff for intellectual stimulation, breadth and maturity, and the difficulty of gaining access to people and to resources after hours, demand special provisions. The lack of such would, no doubt, contribute to the poor completion rates of part-time students.

Of course there is a difference between internal part-time students and external part-time students. Internal students can have regular access to the department and its resources; external students' needs are harder to satisfy. There is by no means unanimity about whether external research degrees are desirable in view of the lack of contribution such students would be making to the department, and the difficulty in monitoring and assisting their progress. However, while they are accepted into the system, provisions have to be made to facilitate successful research study.

**Departmental and institutional facilities and processes****HO 17f**

The following suggestions were made for part-time students.

- Social and intellectual contact with other students and staff is particularly important for part-time students who do not research on campus. Residential schools may not only be feasible for external research students but also for internal part-time students. These would provide intensive periods of sharing and feedback. Graduate seminar workshop series for part-timers will also provide such feedback. If possible, such residential schools or workshops should include full-time students as well.
- Contact with supervisors needs to be negotiated and firmly managed, and could include communication by electronic mail, phone, fax, and teleconferencing. The importance of selection and planning of a feasible project is even greater than for full-time students. External supervisors and industrial supervisors need to be briefed on all institutional and departmental rules and regulations and a pattern of interaction between them, the student and the internal supervisor needs to be negotiated.
- On enrolment employers need to certify that they will allow time for the research degree course to be completed. If the research is carried out in industry or another external site, research facilities need to be checked by the department to ensure that the necessary resources are available.
- Internal part-time students need after-hours access to their supervisor(s) and to facilities, and to some peer contact. Every attempt should be made to make part-time students feel part of the department – where space allows, shared working areas would contribute to students' integration into the department. Normal seminar series should be scheduled to allow the part-time students to participate.
- At the moment academic staff who are upgrading their qualifications form a special category of part-time students. They need the support of their own as well as the host department.

**Provisions for non-native English-speaking students**

Many of the problems faced by these students are experienced by Australian-born students as well. Good practice and good support systems benefit all student groups. However, there are some specific requirements and student needs.

Before enrolment, students should have a language assessment and assistance with enhancing their language skills should this be needed. This could be a one-off course, but it is preferable to provide on-going support by tutors and editors who deal with English for academic purposes. This support needs to include written and oral communication skills. The students' research skills need to be carefully assessed and courses provided which assist them to meet the Australian expectations for research students. For example, a one-year diploma course to upgrade laboratory skills for research students may overcome many of the difficulties which would impede progress in research.

Students from overseas countries need an acculturation and orientation course to Australian life, universities and research culture, including research methods. They need support in overcoming the culture shock, and support is needed for settling in Australia, for themselves and their

**Departmental and institutional facilities and processes****HO 17g**

families. In particular, they often need assistance with finding housing before and on arrival. College accommodation, where available, often facilitates social integration.

Demands on supervisors are particularly high and they need support as well – access to information and centres which give practical help with language skills; with thesis writing skills; with housing, and with obtaining financial support. Overseas students and Australian students from non-native English speaking backgrounds come from very diverse cultures and their individual needs will vary. Supervisors can be made aware of the different attitudes to cognitive processes and to authority which are dominant (though not universal!) in various cultures.

The research programme may be initially more structured than would be customary for Australian students, with frequent progress reviews. While the supervisors need to be attuned to the cultural background of the students, the students need to be coached in critical questioning, critical evaluation, and modes of argumentation which are expected of graduates from Australian universities.

Informal support structures which support these students include peer support by fellow students from the same cultural background or mentors from the students' home country. While this support may be informal it benefits from the department's active encouragement of such arrangements. However, supervisors can ensure through their own initiatives that overseas students do not live in a cultural ghetto by including them in research teams and social events.

Overseas students contribute significantly to Australia's research efforts. For this reason alone, support systems must be available which facilitate optimisation of these students' research potential.

(Source: Moses, I. (1992) 'Departmental and institutional facilities and processes', in I. Moses (ed.) *Research Training and Supervision*, AVCC/ARC, Canberra, pp. 54–59.)



**Evaluation form****HO 18a**

We would appreciate your frank comments and constructive suggestions. Please indicate whether you have attended each workshop. If your response is yes, indicate how useful each one was by circling the appropriate response.

**1. Introduction to the programme**

Attended:                      yes              no

The workshop was:      very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**2. Our department and institution**

Attended:                      yes              no

The workshop was:      very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**3. Creating mentor relationships**

Attended:                      yes              no

The workshop was:      very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**4. Updating research skills – quantitative methods**

Attended:                      yes              no

The workshop was:      very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**Evaluation form****HO 18b****5. Updating research skills – qualitative methods**

Attended:                      yes              no

The workshop was:    very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**6. Planning a research project**

Attended:                      yes              no

The workshop was:    very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**7. Working collaboratively and networking**

Attended:                      yes              no

The workshop was:    very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**8. Writing and publishing**

Attended:                      yes              no

The workshop was:    very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**Evaluation form****HO 18c****9. Supervising research students**

Attended:                      yes              no

The workshop was:      very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

**10. Influencing policy and practice**

Attended:                      yes              no

The workshop was:      very useful                      useful in parts                      not very useful

If the workshop was useful only in parts, or not very useful, please indicate why.

Please comment on the overall programme, the content, organisation, the involvement of mentors and other senior staff.

What activities would you like to see continued or introduced?

Thank you.

## Section 5 References and additional reading

Becher, T., Henkel, M. and Kogan, M. (1994) *Graduate Education in Britain*, London and Bristol, Jessica Kingsley.

This book explores the national background in policy making, structures and resources, and policies for graduate education. It includes several chapters on stages in doctoral work, e.g. starting, doing and completing the doctorate, problems experienced and career expectations.

Boice, R. (1985) '*Writing Without Blocking: A scheme for helping professors write productively, painlessly, and successfully*,'. Center for Faculty Development, California State University, Long Beach, California

The author expands on the strategies described in hand-outs 5 and 8.

Carnegie Foundation for the Advancement of Teaching (1989) *The Condition of the Professoriate, Attitudes and Trends*, 1989, New York, p. 43.

Clark, B.R. (ed.) (1984) *Perspectives on Higher Education: Eight disciplinary and comparative views*, Berkeley, University of California Press.

For those not familiar with the higher education literature, this volume provides an excellent introduction to concepts and theories written by the senior authors in the field.

Department of Employment, Education and Training (1995) *Commonwealth Staff Development Funds*, Programmes Funded 1995, Canberra: AGPS, p. 1.

El-Khawas, E. (1993) *Campus Trends*, American Council on Education, New York, p. 22.

*European Journal of Education* (1996), Vol. 21, No. 3, 1996 'Postgraduate education'.

This volume contains articles on postgraduate education in general and on developments in Britain, Norway, Sweden, the Netherlands and Germany.

Kyvik, S. (1991) *Productivity in Academia. Scientific publishing at Norwegian Universities*. Oslo, Norwegian University Press.

This book examines scientific productivity in a number of fields of learning, analyses the different publication patterns between fields and investigates in particular differences in productivity. One chapter is devoted to gender and productivity.

Kyvik, S. and Teigen, M. (1996) 'Child care, research collaboration, and gender differences in scientific productivity', in *Science, Technology and Human Values* (in press).

Madsen, D. (1983) *Successful Dissertations and Theses*, San Francisco, Jossey-Bass.

This book is also a 'Guide to Graduate Student Research from Proposal to Completion'. It is practical with many lengthy examples of outlines, research proposals, even bibliography cards (does everyone have bibliographical software?). It is most suitable for students, supervisors and beginning researchers in the humanities and social sciences.

Moses, I. (1985, reprint 1990) *Supervising Postgraduates*, HERDSA Green Guide No. 3, PO Box 516, Jamison Centre, ACT, 2614 Australia, HERDSA Inc.

This is a short practical guide for supervisors of research students. It is equally valuable for research students and those starting out in research as it gives advice on the selection of the research topic, evaluation of the project and project management.

Moses, I. (1990) *Barriers to Women's Participation as Postgraduate Students*, Canberra, AGPS.

Moses, I. (1994) 'Teaching and research in colleges and universities: A Comparison between Australia and Germany', in *Higher Education Policy*, Vol. 7, No 2, p. 33.

Moses, I. and Ramsden, P. (1992) 'Academic values and academic practice in the new universities' in *Higher Education Research and Development*, Vol. 11, No. 2, pp. 101–118. See also Ramsden, P. and Moses, I. (1992) 'Associations between research and teaching in Australian higher education', *Higher Education*, Vol. 23, pp. 273–95. Most of the publications arising from this research focus on disciplinary or institution type differences.

Murphy, P. (1995) 'Research policy, quality assurance and affirmative action', presented to the national conference *Women, Culture and Universities: A Chilly Climate?*, Sydney, 19–20 April 1995. She opened her paper thus:

'Research performance has come, for better, for worse, to assume the character of a form of quality assurance for the university as a whole.'

Phillips, E.M. and Pugh, D.S. (1992) *How to get a PhD*, Milton Keynes, UK, Open University Press.

Sadler, D.R. (1990, 2nd edn) *Up the Publication Road*. HERDSA Green Guide No. 2, PO Box 516, Jamison Centre, ACT, 2614 Australia, HERDSA Inc.

This is a short practical guide for faculty staff on publishing in scholarly journals. It addresses the benefits of publication, discusses types of articles and journals, how to select them, how to deal with rejection, how to produce the manuscript and how to offer it.

Wittrock, B. and Elzinga, A. (eds) (1985) *The University Research System*, Stockholm, Almqvist & Wiksell International.

This book examines the role and function of university research in society, discusses research organisation in American, Latin American and Swedish higher education and the interplay with policy and bureaucracy.

Background reading for anyone interested in the research system.

UNESCO-Commonwealth Secretariat (1993) *Women in Higher Education Management*, Paris, UNESCO Press.

University of New South Wales (1994) *Women in Research Committee Plan for Action*, Sydney: unpublished paper.

