Effective PhD supervision and mentorship: a workbook based on experiences from South Africa and the Netherlands: South Africa-Netherlands Research Programme on Alternatives in Development (SANPAD)

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A workbook based on experiences from
South Africa and the Netherlands

A.J. (Ton) Dietz, Jonathan D. Jansen, Ahmed A. Wadee

South Africa-Netherlands research Programme
on Alternatives in Development
(SANPAD)

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Foreword by the South African Minister of Education, the Honourable Naledi Pandor

It is my pleasure to introduce this new publication, a result of SANPAD's Research Capacity Building Initiative Programme. This publication is an important milestone in the longer term strategy, identified in the *National Plan for Higher Education*, to promote research excellence and quality. I am confident that this publication will be of benefit to every supervisor and PhD candidate it reaches.

The Research Capacity Building Initiative of SANPAD has played a remarkable role in actively developing research capacity and a culture conducive to research, aimed particularly at researchers from historically disadvantaged communities. I hope that the beneficiaries of this project, namely the higher education and research institutions, researchers and staff in both South Africa and the Netherlands, young researchers and particularly women from historically disadvantaged backgrounds in South Africa, will be in a better position to meet new development challenges and equipped to participate in the international research community. SANPAD's continued commitment and successful contribution to stimulating and promoting quality research and to producing research output that is useful for development purposes is commendable.

This publication is important for several reasons. In particular, it provides impetus for improvements, both in South Africa and in the Netherlands, in PhD supervision. As a training guide on supervision, it provides scenarios on styles and experiences of supervision. It also offers strategies for dealing with some of the challenges and provides options for PhD supervision and mentoring.

This publication, by providing a valuable insight into best practice models for PhD supervision and mentoring, appropriate to the context of South Africa, will hopefully contribute to the development of the next generation of researchers and academics who are key to a vibrant research and innovating system.

I wish to express appreciation and thanks to the authors who have prepared this Manual, together with the various people and institutions that have worked with them.
I commend the efforts and interventions from SANPAD in support of our national goals in education and research.

G.N.M. Pandor, MP

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Introduction

1.1 Background to this workbook

The mission of the South Africa - Netherlands research Programme on Alternatives in Development (SANPAD) is to promote a high quality research culture and to develop research capacity with the aim of contributing to the development priorities in South Africa. SANPAD recognises that achieving the goal of producing high quality research requires a well-trained research community supported through adequate levels of funding and support.

Adam Habib & Seán Morrow (2005), in a paper entitled *Research, Research Productivity & the State in South Africa*, point out that national spending on research and development declined from 1.1% of Gross Domestic Product (GDP) in 1990 to 0.7% in 1994, despite the fact that South Africa's scientific system now had to support the political and socio-economic aspirations of 40 million, rather than the 5-6 million people prior to 1994. They maintain, further, that the problem appears to be more profound than just aggregate spending on research. They argue that 'academic, scholarly, and applied social research is in crisis in South Africa'. South Africa's most productive scientific personnel are white, male, and ageing rapidly, and if this capacity is not urgently redressed, it will result in a serious decline in the country's scientific profile, prestige and infrastructure over the coming decades.

The South African government in its quest to address this legacy of inequality hosted several meetings of a Higher Education Working Group, which comprises the President of the country and the Vice Chancellors of all higher education institutions, and subsequently a conference in June 2005 to deal with this 'crisis'. The recommendations emanating from this conference included the following:

- Recruiting and retaining high-level scientific and technological personnel, and promoting partnerships between universities, research councils and industry in support of this goal;

- Supporting advanced study and providing appropriate incentives for such pursuits;
- Linking the research agenda to national priorities, and allocating funding accordingly;
- Increasing national investment in research in ways that also leverage quality overseas and domestic involvement;
- Promoting South Africa's role in Africa as a leader in the promotion of scientific research and development on the continent;
- Engaging with scientific globalisation so that South Africa becomes a hub in appropriate research areas, and attracts talented researchers.

According to Habib and Morrow (2005), this plan of action was predicated on other concerns, such as keeping good academics and scholars within the knowledge system and attracting a new generation of students to the research professions. However, this presented another challenge for leaders and managers of South Africa's higher education and research institutions, and that was to manage the tensions that would arise from ensuring a representative knowledge system without irreparably damaging its research productivity.

While Habib and Morrow (2005) agree that the excellent researcher will evolve over time, they emphasize that 'however intelligent they may be, researchers are unlikely to be at their peak immediately after being awarded their PhD'. However, the perception at some South African universities seems to be that academics become qualified to supervise PhD students merely by virtue of having achieved their own PhDs. Candidates attending the SANPAD Research Capacity Initiative (RCI) Programme have raised concerns about inadequate supervision and about difficult relations between supervisors and supervisees. Some universities in South Africa and the Netherlands have developed guidelines and in some instances programmes for supervisors. However, many of these programmes appear to be simply induction programmes on supervision.

At the same time there is growing pressure on academic leaders and managers in South Africa to achieve a more representative racial profile amongst researchers as rapidly as possible. In this context, Jonathan Jansen warns in a speech which challenged virtually all aspects of South African higher education, that 'the university ceases to exist when it represents nothing other than an empty shell of racial representivity at the cost of

academic substance and intellectual imagination' (Jansen 2004: 11). It is crucial that the country gets this balance right and therefore it is particularly important to maintain existing expertise both for its own sake and for the sake of training and support for the upcoming generation of researchers. But again, it raises the question HOW?

SANPAD, in devising this workbook, hopes to make a small contribution towards improving supervision and thereby the production of high quality PhD students and prospective supervisors. The success of this initiative will depend on the acceptance and participation of the senior academic community both in South Africa and the Netherlands. A section of this community has already provided inputs which made this workbook possible. It is our fervent wish that this workbook and the information contained in it will feed into the national debate on the quality of PhD supervision in South Africa and the Netherlands.

CERES hopes that this combined initiative of South African and Dutch scholars will also support and improve PhD supervision practices in the Netherlands, within CERES itself and beyond. The workbook will be useful, we hope, for supervisors and mentors/daily supervisors, but we are convinced that many PhD candidates and new academics will benefit from it as well.

It is the intention to use this workbook intensively in forthcoming PhD supervision workshops, both in South Africa and in the Netherlands, and to further improve its contents and usefulness. All users are requested to send their comments, additions, and experiences to info@sanpad.org.za, copied to the CERES office (l.vantoledo @fss.uu.nl). We intend to use such feedback in an improved second edition of this workbook.

1.2 Workbook objectives

This workbook is based on supervision experiences in both South Africa and the Netherlands. It is hoped that the information contained in this workbook will contribute to 'effective PhD supervision and mentorship'.

The general objective of this workbook is to improve the quality of PhD supervision and mentorship, and as a consequence, the quality of the PhD thesis[1] that is produced in the process. Its more specific objectives are to provide:

[1] We recognize that the nomenclature differs across countries and even among different institutions within a single country. We will however use the word thesis to designate a PhD and the word dissertation to imply

1) Information to PhD supervisors and their respective supervisees, both in South Africa and the Netherlands, on what could be deemed an effective supervision and mentoring process, based on the experiences of supervisors and supervisees in both countries;
2) Information about the expectations of both supervisors and supervisees regarding supervision and mentorship;
3) Information to government, funding agencies and university administrators that might inform methodologies for measuring and securing accountable academic performance through PhD supervision and mentorship; and
4) Information that could lead to an overall positive and fulfilling experience of the PhD process for all participants (student, supervisor, mentor, administrator, funding agency) over the course of studies.

The concept of a workbook such as this one, emanated from the feedback and commentaries contained in the two sets of evaluation reports from South African PhD candidates who were part of SANPAD's RCI initiative. These students felt that PhD supervision in South Africa was less than optimal, and that a more successful PhD production required an environment that was more empowering of students. This view was amplified in discussions with Leaders of SANPAD projects, who maintained that supervision of PhD students was not given the priority it deserved.

SANPAD responded to these observations by implementing its first supervisor workshop in September 2004 with the participation of 35 supervisors. Prof. Dietz of CERES developed the workshop agenda and curriculum, together with SANPAD's Programme Director Dr Anshu Padayachee and the co-chairperson of the SANPAD Joint Committee, Dr Paul Hoebink (the Netherlands). Several supervisors, research managers and deans of students from the various South African universities participated in the programme and related their experiences with supervision and mentoring at Masters and PhD level.

A key recommendation emanating from this first workshop was that a second workshop was needed, which indeed took place in September 2005 with 29 participants. The majority of the supervisors who participated in this second programme had PhD candidates in the ongoing RCI programme. SANPAD used this

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the Masters degree. We will also use the PhD as an umbrella term for all doctoral qualifications (e.g. professional qualifications at this level, such as the DEd)

opportunity to include these PhD students in one part of the programme, which proved not only to be valuable but also informed the future content of the programme.

The programme had three parts:

- Discussion about styles of supervision, experiences with supervision, and the importance of guiding the production of a PhD level research design;
- Discussion about mentoring and mentorship arrangements in South African higher education; and
- Discussion between PhD supervisors and PhD candidates.

Professors Dietz and Wadee served as co-facilitators of this second supervisor workshop.

The evaluation of the second workshop in September 2005 was, once again, very positive. It became clear that some supervisors had, for the first time, the opportunity to discuss among their peers the issues involved in PhD supervision. Many of them agreed that there were very problematic areas in supervision and that there was most certainly a need for serious revision of existing supervision practices. The Dutch experiences over the last ten years with research schools and organised PhD training (with CERES as the most relevant research school for international development issues) was regarded as challenging information. Accordingly, it was decided to include the Dutch experience in this workbook.

The success of this initiative translated into four follow-up proposals:

- A workshop with Dutch supervisors, where people could share their respective experiences (May 2006);
- A third supervisor's workshop, with this workbook being used as the basis for a 'train the trainers' activity (September 2006);
- Regional workshops facilitated by South African scholars to be trained during the third workshop, to be co-ordinated by the team of authors (2007);
- Additional workshops in the Netherlands, for CERES supervisors and invitees from other research schools.

This workbook, therefore, has been designed to improve PhD supervision, both in South Africa and in the Netherlands, and can hopefully be used as a structured training guide for supervisor workshops, along the lines pioneered by SANPAD.

1.3 Acknowledgments

This workbook is a culmination of the efforts, endeavours and support of a large number of supervisors and supervisees who supplied information for this workbook, researchers and officials at universities in South Africa and the Netherlands, and the Department of Education in South Africa. SANPAD wishes to acknowledge its appreciation for their respective contributions.

In particular, SANPAD wishes to acknowledge with sincere gratitude the contributions of the following persons:

- The authors of this workbook, namely Prof. Ton Dietz, Prof. Jonathan Jansen, Prof. Ahmed Wadee, assisted by Dr Anshu Padayachee, and Lolita van Toledo (CERES policy advisor, who, since the start of CERES has been responsible for curriculum development of the PhD training programme) who together efficiently delivered the workbook under rather tight time frames;
- Prof. Jonathan Jansen who served additionally as a critical reader of specific chapters of this workbook;
- Prof. Alan Brimer who so efficiently drafted the annotated bibliography;
- Dr. Pamela Dube for her unstinting support and for providing crucial information and statistics from the higher education sector;
- The South African Minister of Education, Ms. GMN Pandor, for writing the Foreword to this workbook;
- The SANPAD secretariats in SA and the NL and CERES for all the administrative support provided during workshops;
- The participants at the two South African and one Dutch workshop on PhD supervision in resp. 2004, 2005 and 2006 (see appendix). We would particularly like to thank Theo Haupt, Wouter de Groot, and Lorraine Nencel , and SANPAD's Nelke van der Lans for additional contributions afterwards.
- SAVUSA (South Africa - Vrije Universiteit - Strategic Alliances) at the Vrije Universiteit Amsterdam (Saskia Stehouwer and Harry Wels) and Rozenberg Publishers and UNISA Press for editing and lay out assistance;
- And finally the financial support of the Dutch Government, through the SANPAD programme in South Africa.

The contribution by the late Dr Prem Naidoo from the Council on Higher Education on the quality of PhDs in South Africa was most appreciated and has been given special attention in this workbook.

The workbook is a joint effort of the three editors, who share the responsibility for the book as a whole, but who were first authors of particular sections. Ton Dietz is the current scientific director of CERES, the Research School for Resource Studies for Development in the Netherlands. He is also Professor of Human Geography at the University of Amsterdam, and co-responsible for SANPAD's RCI programme. Jonathan Jansen is Dean of the Faculty of Education at the University of Pretoria and Professor of Curriculum Studies. Ahmed Wadee works in the School of Pathology of the University of Witwatersrand, and the National Health Laboratory Services, Johannesburg, where he is Professor of Immunology.

This first chapter of this workbook discusses PhD training in South Africa and in the Netherlands. Its main authors are Jonathan Jansen for the South African section and Ton Dietz for the information about the Netherlands. Chapter two deals with guidelines for supervisors and procedures for admission and approval of PhD projects both in the South African and Dutch context. Its first author is Ton Dietz. The third chapter of the workbook will provide guidelines for mentors and gives some suggestions for organising supervisor and mentor training. Its first author is Ahmed Wadee. In the fourth chapter, different styles of supervision are discussed. Its first author is Ton Dietz. The book ends with a list of relevant and useful literature and references, and an annotated bibliography of a sample of recent literature, by Alan Brimer (RCI coordinator at the SANPAD Office in Durban and retired Professor of English Literature). The Appendices have been a joint production of Anshu Padayachee (SANPAD Director) and Ton Dietz.

1.4 The state of doctoral supervision in South Africa

For the better part of the previous century, South African universities followed the classic British model of supervision. A single student working with a single supervisor on an assigned or agreed-on topic over a lengthy period of time would eventually submit a doctoral thesis for examination. The imagery of a student arriving for a first supervision session, and dutifully being assigned a box of books for reading and a topic for investigation, was a fairly common - if oversimplified - picture of supervision practice in South African universities. In the course of time, the idea of 'coursework' gradually entered the postgraduate degree regimen so that it is now common for large numbers of Masters students to be doing their degrees with significant doses of taught content alongside a 'research' component for the degree.

In the case of the PhD, the notion of coursework is much less common. Students typically continue with the traditional model of a single supervisor supervising a strictly research-based thesis. However, several trends are emerging that signal a gradual break with traditional supervision. One, some universities have PhD degrees in which there is a mandatory seminar-based component without this changing the value or significance of the 'full research dissertation'. An example is the seminar-based PhD in Education Policy of the University of Pretoria. Two, some universities work in a funded consortia that bring together doctoral students for purposes of joint seminars and workshops, again without detracting from the full dissertation being individually supervised. An example is the collaborative PhD in Education involving the Universities of the Witwatersrand, the Western Cape, Cape Town, and the then Durban Westville, funded by the Spencer Foundation. A third model is the split-side PhD where students working with a single supervisor nevertheless participate in formal course-based training at an overseas university. Another example is the laboratory-based team work approach that brings together a group of young scientists for the purposes of joint seminars and collective research under supervision of a common supervisor. In the course of time, it is quite possible that the American university model of minimal required coursework, often in the form of compulsory modules, together with a full research dissertation, might become more commonplace. In either model, seminar-based or dissertation-only doctorates, the problems of supervision constitute one of the most serious threats to the future of the PhD in South Africa.

Every major government policy and plan on higher education in South Africa recognizes the imperative 'to increase outputs of postgraduates particularly Masters and Doctoral graduates', in part because 'the doctorate serves as an indicator of the capacity to undertake and supervise research'.[2] At the same time, surveys in especially the historically black universities indicate 'the strongest concern with improving the supervision and mentorship of postgraduate students', with specific complaints about 'inadequate supervision, a lack of communication between supervisor and student, and the student's misperception of standards, requirements and of the supervisor's role and functions'.[3] These kinds of problems might well explain why 'non-completions' among Masters students, for example, increased by 45% between 1991 and 1999. Reasons provided to explain this number include 'institutional factors like poor supervision [and] a lack of suitably qualified supervisors'.[4]

[2] Department of Education (2001), National Plan on Higher Education, Pretoria, South Africa.
[3] Centre for Science Development (1997), Report on Social Science Research Methodology Teaching at South African Tertiary Institutions, Pretoria, Human Sciences Research Council, pp. 25-27.
[4] Charlton Koen (2005), Challenges Facing the Education, Training and Employment of South Africa's Scientific Labour Force, Paper Two, Human Sciences Research Council, p. 32.

It is of course a redeeming feature of South African higher education that a number of outstanding scholars and supervisors can be found throughout the university system, though disproportionately located within the former white institutions; this is acknowledged.

Nevertheless, there are *systemic* problems of the kind listed below:

1. The uncontrolled growth of doctoral student numbers and the corresponding lack of supervision capacity. The pressure on institutional finances, and the incentive of subsidy income through increased student enrolment, has led to all kinds of questionable practices, for example the enrolling of large numbers of doctoral students for whom there are often few skilled and available supervisors.

2. The quality of PhD supervisors; a problem that faces the well-resourced, established universities, but especially the historically disadvantaged institutions. Few supervisors are selected on, let alone trained in, advanced methods of supervision. Appointed supervisors therefore seldom have a conceptual map of what constitutes acceptable supervision. Supervisors themselves are often the products of poor supervision, and do not therefore hold experience of what constitutes competent supervision.

3. The quality of doctoral student intake. The fact that most South African students are poorly selected and supervised at the Masters level, means that these same students become minimum-entry students at the doctoral level. In consequence, universities without strong and competitive selection procedures for PhD students, often find themselves matching a weak doctoral student with a weak supervisor. The end result is disastrous for the student, the institution and for the unsuspecting public.

4. The lack of institutional selectivity with respect to supervisors. It is assumed that an academic with a PhD will automatically be capable of competently supervising a doctoral student. Without training, and without any assessment of their supervision capacities or competence, every year scores of academics take on their first doctoral student, often without institutional support, guidance, or oversight.

5. The lack of an induction experience for new supervisors. Even if the supervisor does have potential for competent supervision, few institutions require a slow and monitored progression starting, for example, with a demonstration of competent Masters supervision as a prerequisite for doctoral supervision; or assuming the role of co-

supervisor for the purpose of learning from a main supervisor. Under pressure to accommodate ever more doctoral students, there is less and less preparation for advanced supervision.

6. The lack of internal evaluation systems for measuring supervision competence. While there are all kinds of evaluation instruments, some mechanical and routine, for measuring teaching performance and research outputs, there are hardly any institutional procedures for holding supervisors to account. Accordingly, it is not uncommon for faculties or departments to have supervisors with large numbers of students allocated to them, but without any evidence that they are actually 'delivering' long-enrolled students for graduation purposes.

7. *A compromised system of external accountability* for the final thesis. In several universities, a highly problematic relationship has developed among supervisors located in institutions with long traditions of cooperation, e.g., the traditional Afrikaans-medium universities. For example, there is often a tacit agreement that a friend or former student at one university would externally examine a doctoral dissertation of a friend or former supervisor at another institution, and vice-versa. The outcome of such examination, among allied institutions and academic colleagues, will normally mean a 'pass' for the thesis, irrespective of the quality of the final product. In this closed pattern of external examination, there is therefore no way of receiving meaningful feedback on the quality or competence of supervision.

8. The lack of an enabling departmental or institutional culture to support effective supervision. The enterprising attitude of one or two energetic supervisors is unlikely to be sustainable in an academic culture that does not create a positive departmental or faculty environment for things like research seminars, faculty development workshops, incentives for exemplary students and supervisors, conference funding opportunities, occasions for airing student's work-in-progress, provision of mentorship resources, and release from heavy undergraduate teaching loads. It is common for an eager new supervisor to attend external workshops only to be frustrated by the lack of understanding and support from a head of department or dean to enable implementation of newly acquired supervision ideas.

Bad practice in doctoral supervision is therefore sustained by a lack of effective interventions from within, or outside of, institutions to correct these problems. To be sure, there are small-scale training programmes from various national and international agencies, in which current and aspirant supervisors might participate on a voluntary

basis. But there is no system-wide mechanism for improving the quality, depth and sophistication of doctoral supervision. This workbook is a small contribution to at least raising awareness of the seriousness of the problem and offering guidelines for effective supervision and mentorship.

The following guidelines, drawing on the actual experiences and observations of exemplary supervision practices within South African universities, demonstrate what could be done to improve the practice of supervision:

1. Select new doctoral students with great caution, for problems of supervision are compounded when the PhD student is clearly not well-suited for advanced study at the level of the doctorate. Universities that use combinations of personal interviews, academic records and samples of formal writing in making selection decisions, are more likely to bring into the supervision pool students who are 'supervisable'.

2. Choose new supervisors with considerable care, for poor supervisors can be a major factor in student completion rates, the quality of the thesis and the overall supervision experience by student and supervisor alike.

3. Provide formal training for new and promising supervisors on the technical, ethical, personal, legal, administrative and professional aspects of supervision. Such training should be ongoing, and ideally lead to a license for supervision.

4. Design an induction programme for new supervisors, so that they gradually learn to supervise, ideally under a mentor and, initially, in a co-supervision role.

5. Create reporting opportunities for new supervisors in the field, so that they can receive constructive feedback on emerging problems and take corrective action before serious problems surface.

6. Structure opportunities for students to provide feedback on the quality and effectiveness of supervisors, and on their experiences of the overall supervision process. It should be evident to students that such feedback is acted on within university practice.

7. Set up 'early warning systems' within the department or school or faculty to alert to problems of students and supervisors, so that early action can be taken. One Faculty requires the defense of a full PhD proposal at the end of the first academic year, and

this event determines whether the student will be able to continue or not in the PhD programme; it also brings to the fore problems of adequate supervision.

8. Prepare an updateable *Handbook for Supervision* within the relevant department or faculty, so that every supervisor - and student - is aware of, and familiar with, the often complex administrative regulations, requirements and deadlines that accompany this process.

9. Hold supervisors accountable for the progress of supervision by requiring regular (for example, quarterly) reports on each student.

10. Limit a new supervisor to one doctoral student only, and only increase the limit (to no more than three students) once there is evidence that students have been supervised until completion.

11. Compose teams of experienced and young supervisors and, where possible, use a system of mentors to guide new PhD candidates.

12. Require at least two international examiners to review and evaluate a completed thesis; these examiner reports should form part of the annual evaluation of the capacity of supervisors and of quality supervision within a School or Faculty or university.

It is crucial to recognize the reproductive character of research supervision. Weak supervision reproduces weak graduates who will in turn, if they opt for an academic career, reproduce the same weak model of supervision in an endless cycle of mediocrity. A weakly supervised graduate is unlikely to yield high quality research in competitive academic journals, which in turn weakens the entire research enterprise within an institution. Collectively, such practices set limits on national innovation, scholarship and competitiveness within the higher education system as a whole. But it all starts with a single supervisor-supervisee relationship.

What this manual intends to do is to begin to interrupt such practices by drawing attention to powerful models of practice that are responsive to the problems of supervision within South Africa and the Netherlands.

1.5 The state of PhD training in the Netherlands, and within CERES in particular

For a long time, PhD supervision in the Netherlands consisted of an individualised relationship between a 'promotor' and a PhD candidate, with no 'training' involved. Before the mid-1980s most PhD candidates were junior members of the rapidly growing university staff, who had been appointed on the basis of a *doctoraal diploma*, the equivalent of a Masters degree. However, there were also people working outside the university, who produced a research manuscript, which was then defended as a PhD thesis. Normally, these PhD manuscripts are published as such in book form, but in small numbers. The PhD ceremony was, and still is, a public affair, where candidates have to answer questions in a ceremony of 45 minutes, after which they officially graduate. Unlike at British universities for instance, there is no 'assignment' for improvements to be made after the defence. The PhD manuscript that is defended at this public occasion is then already available as a book.

In 1986 the Dutch Ministry of Education created the position of '(Research) Assistant in Training', or AiO (*Assistent in Opleiding*), a specific salaried position with the objective to produce a PhD within (generally) four years. AiOs are regarded as members of staff, and not as students, but they are also supposed to devote some part of their time to specific post-graduate training. Some research units started to experiment with organised PhD training sessions in the 1980s, and in the early 1990s many of these initiatives were formalised in (preferably) national research schools, which also became the central organisations for research. The Royal Netherlands Academy of Arts and Sciences was asked to create a specific body (Evaluation Committee for Research Schools/ECOS) to accredit and – in rounds of five years - reaccredit these research schools. Until recently, universities attached great value to these evaluations. Most of the research time of senior scholars, and all regular PhD projects had to be incorporated into these research schools. Often many other types of PhD projects also participated in these schools (bursaries, 'sandwich' PhDs, practitioners' PhDs, self-financed PhDs). Currently, there are about 100 (re)accredited research schools in the Netherlands, some of them also with research partners in Belgium (Flanders).

At the moment the future of the evaluation procedures, and even about the future of research schools as such, is uncertain. The European Union's aim to create a comparable postgraduate landscape in all member states has changed the specific Dutch academic situation considerably, with Bachelors and Masters programmes now replacing the old *doctoraal* programmes. Many departments with one-year Masters programmes (in Arts and Social Sciences) have opted for a separate research Masters

programme of two years; like for example in Natural Sciences and Health Sciences, and many universities have started to reorganise their teaching departments into separate bachelors and post-graduate programmes. The new 'graduate schools' (with very different forms emerging now) will also provide localised PhD courses, and will take away some of the responsibilities of the (national) research schools. However, the expectation is that both levels (national Research Schools and local Graduate Schools) will play a role, in a kind of matrix organisation.

CERES was formed in 1992 as the national research school for resource studies for development in the Netherlands, with a broad and growing membership of partner institutes, and a gradual focus of attention towards 'global social transformation' (see http://CERES.fss.uu.nl). CERES has established partnerships with the large international development expertise in the Netherlands and Belgium (see http://www.dprn.nl), and with EADI, the European Association of Development Research and Training Institutes (see: http://www.eadi.org). CERES was accredited for the first time in 1994, and subsequently reaccredited in 1998 and in 2004. At this moment, CERES is the largest research school in the social sciences in the Netherlands, with 230 senior members and 250 PhD candidates, from all over the world. CERES PhD candidates and senior researchers work in the scientific domain of social and resource dynamics, with disciplinary backgrounds ranging from economics, geography, political science, and social-agricultural and social-forestry studies to area studies, anthropology, sociology, and social psychology. Since 2002, CERES has also formed a partnership with SANPAD to be involved in the SANPAD's RCI (Research Capacity building Initiative).

CERES has developed a training programme for PhD candidates, consisting of five key elements:

1. Centrally organised training components, with an emphasis on the first PhD year, including an introductory programme, and tutorial presentation sessions where PhD candidates present their research design to peers and selected CERES staff;
2. Specific training components and meetings organised by (eight) CERES thematic working programmes;
3. An annual summer school;
4. Local-level training organised by partner institutes and graduate schools, open for all CERES PhD candidates;
5. Information exchange about all other relevant meetings and training opportunities on the CERES website, which is continuously updated.

The CERES training programme is available for everyone who is interested, both on the website and in an annually updated booklet.

In 2000, CERES organised a special strategic project, to look into the practices of PhD training and supervision in the School: 'Improving the educational climate' (CERES 2001). In order to be of assistance to young researchers in the process of doing research and writing a PhD thesis, yearly adjustments in the training programme alone were regarded as not sufficient. During the second period of re-accreditation of CERES as a research school, its directorate thought it wise to give extra attention to the CERES training climate in a broad sense. It was felt that several aspects needed improvement. Recognising that the requirement to finalise research projects within four years is becoming a strict condition, the Directorate opted for a critical study of 'the educational climate' that could generate realistic insights to inform appropriate initiatives to improve training and supervision facilities at the different levels of organisation. The aim of the strategic project was to gain a better insight into the training and supervision conditions within the different localities and programme units of CERES. Through interviews and discussions with both senior and junior researchers, weaknesses in the training and supervision facilities were identified. Revealing shortcomings in training and supervision was necessary, given the growing number of PhD candidates around a limited number of formal supervisors, and the intense time pressure under which PhD candidates often work during their research projects. Furthermore, these PhD research projects usually involve considerable fieldwork periods abroad, often under difficult circumstances.

For this strategic project, a researcher (Dr Mirjam Klein Wassink) was asked to make an inventory of experiences, possible problems, and requirements/wishes of PhD candidates in general within CERES. She was also asked to formulate suggestions for improving the training facilities and the training climate. The two main reasons for executing this inventory were: (1) although the first re-accreditation by the Royal Netherlands Academy of Arts and Sciences (KNAW, in 1998) made positive references to the structure of the teaching programme, it considered the length of time needed for a PhD to be completed as problematic; and (2) to clarify what CERES PhD candidates expect from CERES. Hence, there was a demand for a better understanding of the needs and wishes of PhD candidates with respect to the teaching programme and other PhD-related matters.

The project consisted of two phases. The first phase of the project consisted of a survey of the existing educational climate. This was done by conducting interviews with PhD candidates, as well as with members of the CERES management board and the PhD committee. It was decided at this stage that the focus should be on problems experienced by the PhD candidates themselves. A plan was then formulated on the basis of the problems and wishes identified. Specific attention was also paid to delays in completing a PhD programme, and the reasons behind these delays. Interviews took place with 40 PhD candidates from all CERES Working Programmes and participating institutions. What emerged from the interviews was that problems pertained to two broad categories: (1) matters having to do with commitment and communication, and (2) matters relating to training and supervision.

As is the case in many other research schools, despite the institutionalisation of PhD training, and even with serious attention for the quality of supervision, PhD studies still face many problems (see CERES 2001: 2-3):

- The percentage of non-completion is regarded as too high;
- There is a very long process towards completion, often more than six years, instead of the 'normal' four years;
- Many PhD candidates regard the PhD period of their life as a lonely and stressful episode, often at a high personal cost, and without a 'mentor' with whom to discuss problems;
- There is a host of supervision problems, meetings have inadequate frequency and depth, and often there are no regular performance and progress interviews;
- There is a lack of adequate research funding, and financial arrangements are unclear;
- PhD projects can also be a stressful and frustrating experience for supervisors;
- And completed PhDs often have a low scientific and social impact, so that they might be regarded as a rather wasteful way of spending research time and money.

Many PhD candidates and supervisors agreed about the most important sources of problems during the PhD experience, with common problems being the following:

- Poor research design, no focus, no adequate research question;
- Lack of realistic expectations ('targeting the sky');
- Inadequate research background; lack of training in methodological and writing skills (inadequate Bachelors and Masters training);

- Problematic research facilities (time, office, computer, assistance, money, flexibility in rules, under-funding of essential tasks);
- Many competing tasks (teaching, consultancies, family life);
- Bad planning, bad phasing, bad time management;
- Major problems with writing academic English;
- Negligent or inadequate supervision; often unclear, strained relationship;
- Inadequate networking: not aware of others working in the same field of studies, no contact with peers, parochial local research cultures;
- Breakdown of motivation, psychological stress due to isolation, feelings of uselessness;
- Lack of possibilities to participate in a vibrant research culture.

In addition, PhD candidates complained about infrequent meetings with supervisors, not enough specific knowledge among supervisors with regard to the candidate's research topic, supervisors' lack of attention for planning and keeping within time limits, not enough support for (or even attempts to block) networking among 'third parties', and not enough support for publishing beyond the PhD Thesis. Particularly projects with only one supervisor often seemed to cause problems.

Recommendations included putting more emphasis on monitoring (and training) supervisors, and intensifying the PhD training with regard to methodological and contextual elements. The implementation of the recommendations began in 2001, both at the central level and at the working programme level. To further the continuation of a debate about improving supervision and training conditions, the issue was given a place in the programmes of the 2001 and 2002 Summer Schools, held at Wageningen and Utrecht universities respectively, and on both occasions supervision conditions were critically discussed. After the first phase, the project was taken over by regular staff.

In the latest re-accreditation report of the Royal Academy (in 2004) the quality of the PhD training programme and of the supervision arrangements at CERES was praised. However, in a large and diverse research school like CERES, with participants from a wide variety of backgrounds, and from many different countries (60% of the current CERES PhDs come from Africa, Asia and the Americas), constant care is needed and not all problems that have been detected can easily be overcome. More attention to the supervisory process is still needed, and this workbook may be one of the tools to improve supervision practices.

1.6 Common problems, shared inspiration

The PhD experiences in South Africa and the Netherlands of course differ, due to different academic and social contexts, and due to major differences in the recent history of these two countries. However, it is not difficult to see many common problems as well. Bringing together the experiences and opinions from an African and a European perspective already proved very useful during the supervisor's workshops. It is hoped that this workbook adds more inspiration for improvements on both sides.

2

Guidelines for supervisors

2.1 Procedures for admission and approval of PhD proposals

Both in South Africa and the Netherlands a wide variety of procedures and practices exists with regard to the admission and approval of proposals for PhD projects. In general one could say that the ultimate responsibility to admit a candidate to a PhD defence rests with a specific body under the Vice Chancellor, consisting of a selected group of professors, and assisted by administrative staff. Often the Deans of Faculties and Heads of Departments (and their administrators) play intermediary or implementation roles. University regulations guide the process, and it is important that PhD supervisors and supervisees are familiar with these regulations governing their studies.

In most Dutch universities the actual admission to the PhD defence only takes place at the end of a PhD programme, and not at the start. Although a system of research schools (and nowadays also of local graduate schools) exists, in which most PhD candidates are registered from the start of their project, there still are many examples of PhD defences of candidates who have never been registered in any research school, graduate school, or even in a Department. This has everything to do with the chaotic recruitment practices of PhD candidates in the Netherlands, circling around the only rule that really seems to exist: a PhD candidate needs to find a professor who is willing to submit the PhD thesis to a university committee dealing with admission. Without claiming to give an exhaustive overview, the following different categories of PhD candidates can be distinguished:

- Members of the teaching staff of universities, who had not yet obtained their PhD when they were appointed, and who (sometimes in their free time) conduct, and report about, research that a ‘promotor’ (or a team) regards as good enough to be submitted in order to be admitted to the defence;

- PhD candidates who apply for positions as junior PhD researchers in advertised research programmes, sometimes as separate positions, often as part of a larger programme, funded by the university or by external funding agencies (e.g. NRF

in South Africa, NWO or KNAW in the Netherlands, Rockefeller Foundation, etc.);

- PhD candidates who develop a research proposal (often as a separate project) and succeed to get funding, and a position in a research department, either from external funding agencies, or by using departmental, faculty or university funds; sometimes this follows a pre-PhD training year, or a position in a Research Masters programme;

- (Foreign) PhD candidates who are part of an arrangement between a funding agency or country and a university or an intermediate agency (in the Netherlands: NUFFIC, the Netherlands University Foundation For International Co-operation), and with or without a (selection) role for Embassy staff;

- PhD candidates who develop their own proposal, with their own funds, or who are assisted by their non-university employer, and at some point succeed to convince a PhD Promotor that their thesis is 'defendable'.

In some departments and research schools registered PhD candidates have to defend their research proposal during their first year as part of a go/no-go procedure. Often, more informal arrangements are agreed upon. Many departments and research schools in the Netherlands require a 'training and supervision plan', and an annual update of that plan, as part of monitoring activities by research managers. Again it is advisable to find out about specific requirements before registration, and it is important to know the 'culture' in the department and school with regard to the practices around these requirements. It is also essential to find out what the 'carrots' and 'sticks' are for supervisors and supervisees concerning completion and the timing of completion. Many universities/schools/departments in the Netherlands have started a remuneration scheme for 'completion in time' (in general within four years) and withdraw (some) facilities if PhD candidates are not ready in time.

2.2 Aims of a successful PhD trajectory

The most important goal of a process that leads to a PhD degree is learning to do independent research (design, implementation, analysis, reporting) at a scientific level which is regarded as acceptable by senior scholars in a field, to be confirmed during a *rite de passage*. However, the importance of PhD-level studies for research institutions

creates expectations beyond this goal of individual learning, and beyond the ritual of the PhD ceremony.

A PhD is an apprenticeship degree, but it is also a scientific project, adding to a body of knowledge. Supervisors 'oversee' both a maturation process, and a process of scientific discovery, with potential social and scientific impact. It is important to note that quite a large variety of 'definitions of success' exists with regard to PhD 'products'. Of course the basic achievement is the successful defence of a PhD thesis, upon acceptance by a PhD committee. However, sometimes it also counts whether the PhD thesis has been produced within the designated time. In some situations a PhD project is only regarded as an academic success if the thesis is published, and if there are additional (journal) publications, and the status of these journals can be important too (CERES uses a journal and publishers rating system (see http://ceres.fss.uu.nl/, under 'rating', also see appendix b); this system has now also been approved and is used by EADI, the European Association of Development Institutes).

Nobody wants to write for the bookshelves only, so in some scientific fields citations count as well, and hence it is important to select journals with a high impact score, or publishers with a good commercial network. Some PhD theses have a major impact on teaching, or a high practical applicability. Others have a clear social impact, and PhD holders can also influence the political and social impact of their work by being 'visible' in local journals, in newspapers, or in the visual media, and they can organise policy meetings, write policy briefs, and 'report back to the field community'. One can also judge the PhD projects by looking at achievements in the scientific and other careers of PhD holders, of the supervisors, and of the department or university where the PhD candidate did his or her studies. The intellectual status of the PhD thesis can be enhanced by organising follow-up conferences, and by presenting sections of the work in various kinds of intellectual gatherings. The relative importance of these measures of success varies considerably across academic disciplines, among departments, and between supervisors. Often these expectations remain under the surface, and do not form part of strategic discussions between supervisor and candidate, or at the department level. When there are major differences of expectation (and there often are), one or the other party will be very disappointed, and this will give plenty of room to external criticism by peers, or evaluation committees. The above is likely to happen in interdisciplinary and international settings, where many different research evaluation cultures come together.

In summary, the following measures of success of a PhD project can be (and are being) used in evaluations:

- The PhD thesis is accepted by a PhD committee;
- The defence went well, and the candidate answered all questions acceptably and with scholarly eloquence;
- The thesis is produced within an agreed time frame;
- The thesis is accessible electronically;
- The thesis is published as a book;
- The thesis has generated additional publications;
- The publications appear in highly-rated journals, and/or with esteemed publishers;
- The publications are read, which can be traced after some time with the help of citation impact scores;
- The publications are influential in teaching, in stimulating other academics, and/or in practical applicability (sometimes called the 'valorisation' of the research);
- The research process and its results have a social impact;
- The PhD degree has advanced the career of the PhD holder;
- The PhD has a positive impact on the status of the supervisor(s);
- The PhD reflects well on the university where the candidate defended the thesis, the (research) departments where s/he worked, and the research school to which s/he belonged.

At CERES, PhD candidates are encouraged to publish a book (equivalent to or based on the PhD manuscript), to make the text available electronically, and to publish at least two scientific articles, and preferably also an outreach type of product (which can be a publication in a local language, a popularised version, a film, or contributions to local newspapers, radio, or television programmes). PhD candidates are also encouraged to start their own websites, and to post all relevant products resulting from their research work on that website.

In countries like South Africa and the Netherlands, where the majority of the population are not native speakers of English, language is always a sensitive subject. In the Netherlands, PhD theses nowadays are very often written in English. It is often seen as a disservice to the PhD candidate to only be published in Dutch. However, if the research work takes place in a situation where potential readers interested in the results cannot read English there should be serious attention for publications of some kind in the relevant local language(s). Some PhD candidates solve this problem by including a

summary in a different language.[1] In some academic circles in South Africa there is an urge to use indigenous languages (Zulu, Xhosa, or Afrikaans for instance). Many South African scholars regard this as unwise and stress that it is important when addressing the academic community to do this in English. Still, many agree that there can be good reasons to produce at least some form of product for the local community. Some even regard it as a moral duty: even if it is a double burden, it needs to be done.

At CERES and in the SANPAD-RCI programme, it is made clear to PhD candidates from the beginning that they have various functions to perform. In the first month of their PhD study they are already confronted with the question: Who is your audience? What type of dissemination is planned? What is regarded as a valuable product in your field of study? What is the publication profile of scholars in your field? Which are the leading journals in your field? Who are the current leading authors and scholars in your field? What is the story you wish to tell, the narrative? How are you going to link with other people's stories? How is the narrative built up? How will the conclusions be presented? How will PhD candidates organise responses with people in their domain? It is important to ask these questions at the very beginning of the process, and repeat them regularly in later years. PhD candidates are encouraged to make their intentions known so that they become aware of the pitfalls. They are also encouraged to think about the relevance of their project beforehand, and to be aware of the fact that there are domain-specific experiences of relevance. They are asked to think about language editing, and to start thinking about follow-up, aftercare, and effect enhancement. Who are the right people and which are the right journals to 'plug' your work into?

2.3 Institutional arrangements

There are many different types of PhD (and Masters) projects. In general, most (research) departments require some form of admission to a PhD programme, or to 'the right to defend a PhD thesis'. Normally candidates need to have some kind of acknowledged prior academic training, normally a Masters degree, which is recognised by the academic authorities in the university where the PhD defence will take place. In case of doubt these authorities use the services of a degree valuation agency (NUFFIC in the Netherlands). At some point in time, all candidates who are registered as post-graduate students or as PhD candidates need to have a supervisor or a team of supervisors. For PhD candidates this is usually already settled upon registration, or else

[1] In the Netherlands all PhD manuscripts are required to contain a summary in Dutch, but in addition summaries in other languages are sometimes added, from French and Spanish, to Arabic, and Bahasa Indonesia.

it needs to be decided during their first year. Often it forms part of a (pseudo-) contract, which in the Netherlands is widely known as a TSP, a Training and Supervision Plan.

CERES requires supervisors and PhD candidates to generate a 'training and supervision plan', a kind of contract that is also signed by the Head of Department during their first PhD year. It has to be updated every year, preferably during annual performance interviews, or other formalised occasions, however, this is a responsibility at the departmental level, not at the level of the research school (although monitoring does take place at that level). It is advisable to include the following topics in a sound TSP:

- The length of the PhD contract;
- Facilities provided, and in case of a salaried position, the legal position and specified benefits;
- Tthe rights of a PhD candidate, and the rights of the institution and of the supervisor(s);
- The team of supervisors, and a definition of tasks in case more than one supervisor is being assigned;
- Ssupervision time available, and schedule of meetings;
- Expected work load for the PhD candidate;
- Preferred feedback, and styles of communication; supervision ethics;
- In case of fieldwork elsewhere: expectations of visits by the supervisor, and communication practices while away;
- Reporting arrangements and 'delivery dates'; expectations about the timing of supervisory comments on draft texts;
- Funds provided, for which purposes, and how to account for them;
- Intellectual property rights (who owns what research product);
- Research ethics and rules concerning misconduct (e.g. what to do in cases of corruption, fraud/theft, plagiarism, harassment, lack of intellectual honesty);
- 'Management of conflict';
- Arrangements with regard to intellectual, and financial support from others;
- Expected conference and workshop attendance (and funding);
- Joint publications, publication arrangements in general.

Apart from the TSP, it is generally recommended that supervisors, if they come from different departments, discuss in advance an arrangement of (financial) benefits upon graduation, an arrangement of supervision and other costs, and an arrangement of shared authorship, or recognition in other forms.

Research schools in the Netherlands usually also have a claims procedure, in case things go wrong. Often this is a layered structure, in which problems initially should be solved at the level of local departments. Only when problems prove to be insurmountable at that level a 'third party' arrangement exists. At CERES, both an informal and a formal approach exist. Occasionally PhD candidates do change supervisors, or even departments, and some indeed experience intense conflicts in one department or university, and prefer to graduate elsewhere.

All universities have rules about the actual defence procedure, but these may differ considerably from place to place. In the Netherlands, a central university committee always decides about the admission to the defence, and about the composition of the committee which decides about the manuscript. However, the committee composition itself may vary (e.g. from three to seven members, and with regard to some rules about the representation of professors from the university where the defence will take place, or about the minimum representation of full professors on the team). There are also different practices of awarding degrees with distinction (*cum laude)*.

2.4 The importance of a sound research design

At CERES it was discovered that training in the first six months of any PhD study is most effective when it focuses on a proper research design: Make the research process as transparent as possible and think about it in advance. At CERES, PhD candidates present their research design proposal within the first year after registration. This is done in a concentrated joint peer-based presentation set-up (the 'Hilversum meetings'), but some CERES institutes (e.g., the Institute of Social Studies - ISS - in The Hague) organise an additional formalised occasion where this is done as well. In their presentation PhD candidates should be able to show that they will become an expert in this domain. What needs to be organised for the PhD project to become a success? Which courses are required? What suitable research networks are available?

An important discussion concerns time, and time management. Finances should also be discussed, particularly funds for fieldwork. Many PhD candidates and supervisors are rather naïve in not claiming their topic. PhD candidates are now encouraged to use the Internet; to let the world know they are becoming an expert in the field! Doctoral students choose topics that they think are unique, just to find out that people next door have done this research before, or have given up for good reasons. If in the third year of a PhD project a candidate or a supervisor discovers that his/her research has already been done by somebody else, it is a killer. One of the most important elements of the

research training is that PhD candidates are trained how to identify a clear and coherent research question. Is it a researchable question? What are the relevant sub-questions? How do these questions fit into the existing body of work on this topic or subject?

Preparing and implementing a research design means making decisions about many different things. The following aspects are important:

1. Domain

- The research *topic* and a brief 'lay' way of describing that topic.
- A provisional *title* (later on, a catchy title, the inclusion of all important 'markers' in the title, the subtitle, and the key words become important elements as well).
- The study should be positioned in one or more *research domains* (fields of study; disciplines), with their own concepts, research philosophy, styles of reasoning, and styles of presentation, but also with their own 'heroes' (people you should not miss), and their own 'canon' of literature references, that 'should be there' (which could be called a culture of signalling). In some domains these have to be references to all the relevant 'top-level', or 'A-rated' journals, in other domains books are far more important. In some fields references to 'grey' literature (policy documents, unpublished manuscripts, NGO-based material) is regarded as important, in other fields much less so. In some domains most of the references are derived from internet sources, whereas in others this is 'not done'. The study should use one or more *theoretical frameworks* and deploy an accepted *research methodology*.

2. Facilities

- The next element has to do with the *enabling environment*. What are the requirements for admission and registration as a PhD candidate? Who will be the supervisor(s) and - in case of a team - how will they perform individually (separate tasks?) and as a team? What are the courses which are required, and how accessible (or expensive) are those courses? Who will pay for them? What are the facilities that are available: a library, a computer with internet access, printing and copying facilities, telephone access, secretarial services (and for what tasks?), language training facilities, writing and editing assistance?
- Be realistic about the *time* involved in the various phases of the research, and find out whether it is in line with the time a PhD candidate has at his or her disposal. List other duties which may 'eat away time'. Timing (a time table) and time (and agenda) management are important aspects of a proper research

design, and that means that the supervisors' time has to be planned as well, giving a general idea of what PhD candidates may expect.[2] Part of the Training and Supervision Plan (see before) should be devoted to the protocol of candidate-supervisor meetings and their timing and sequence.

- *Funding* is a separate and important element of a research design, both the funding of the the PhD candidate's time (if there is any separate funding), and of that of the supervisor(s) (if there is any financial compensation), but particularly funding for the actual research work 'in the field', and - where relevant - in subsequent laboratories. If funding comes from outside sources, what reporting requirements exist, who should do the reporting, and how much time will this take up?
- Whenever there is actual fieldwork involved, the *fieldwork organisation* is a crucial element of a research design. What research permits are needed, where can it be obtained, and at what nominal and real cost? What is the time involved in getting permission of a research permission administration. In some countries one has to apply for research permission at central government offices many months in advance, and one needs a research affiliation with a recognised research institute; additionally, the research permission needs to be confirmed at provincial, district, and village/or municipal levels, sometimes all at considerable costs (cash, gifts, ritual meetings). How to find suitable research assistants and how should they be trained? What is an accepted level of payment for their services? What hierarchy can be established among them (also financially?). How to involve the research subjects (and the authorities?) in the research design? Is it necessary to have a formal research design, which will be accepted politically or administratively, but to also develop a hidden research design for the more sensitive parts of the research? What reporting requirements need to be met at the offices which have given research permission? Are there requirements to leave your primary data behind?

3. Public relations

- '*Research plugging*' can be important: make sure that research topics are registered in relevant research databases and are accessible electronically. Many PhD candidates nowadays have their own website, and are connected to websites of research schools and institutes, or of research funding agencies. Some PhD candidates put all their ongoing work (and a lot of fieldwork photographs) on their websites, although there is an aspect of intellectual

[2] In the Netherlands it is generally assumed that any PhD project will require around 400 hours of time investment of a supervisory team, for a four-year PhD project.

property management involved here (with some naïvely putting Word-texts on their websites, which can easily be downloaded and changed/used by people and agencies 'hunting' for pioneer knowledge, or simply by secondary school pupils who steal papers for their own benefit). It is also important to know who the leading authors in the field are, as well as it is generally useful to design a strategy to inform them about the PhD project and its results. Including them in literature references is a must. If they are part of a manuscript committee, or if they have to decide about a funding request, or a journal publication, and their work is not included in the list, this generally boomerangs on their opinion about the work. Also make sure that their work is cited and referred to correctly.

4. Research plan

- The most important part of the research design is a clear and coherent *research question*, with all concepts defined. It should be clear from the research question in which research domain and - where relevant – in which geographical area the research is positioned, and what its historical depth will be.
- The *method of inquiry* should be indicated: what are the sources of information that will be included in the research, what is their accessibility, and what data sets will be built up? Connected with methods of data gathering are the *methods of data analysis*.
- Each PhD thesis within the social sciences, and some others as well, devotes some space to *contextual information* about the research population and the research area. What information will be included in this section? How specific ('unique') are the research population and the research area, and what comparable information exists about research areas and research populations elsewhere, which could be relevant for the research and its conclusions (and create the possibility to generalise from these conclusions)?
- It is good to think in advance about the way the 'theory', the 'context', and the 'core research findings' will be presented in the final thesis, the *thesis outline*. Again, this partly depends on the research styles in particular disciplines, and on preferences among groups of supervisors. In some disciplines the fixed order is as follows: Introduction, Research question and methods, Context, Data presentation, Data analysis, Conclusions. In others, Context comes before Research question and method (particularly when these are context-dependent). And still other disciplines prefer theses consisting of material that has already been published elsewhere, in which each chapter contains all the mentioned elements.

5. Dissemination plan

- Although things may change during the process of writing a PhD thesis, it is advisable to develop a *publication strategy* in advance. The first matter to be dealt with is the language in which the thesis and other publications will be published. Another question is taboo in some of the social sciences, but very relevant in other parts of academia: will the thesis be a book that is mainly a compilation of published (and submitted/accepted) articles and/or book chapters? What about co-authorship arrangements? (Is this an accepted practice in your discipline or field? Should there at least be one chapter of which you are the first author? What is the usual order in which co-authors are mentioned?). Even if the thesis itself will be a book on its own, the question of additional publications is still a relevant one. What type of additional publications will you opt for: journal articles (which are the most important journals in your field?), another book, or book chapters (which are the leading publishers?)? How much time will a PhD candidate devote to working papers, conference papers, posters, and conference attendance? Are publications and (some parts of) concept chapters available on the internet? What about regularly feeding email lists with information about the on-going project?
- There should be some basic indication about the intended *length* of the PhD manuscript, something that also varies widely throughout academia. In some disciplines 30,000 words is regarded as a sufficient amount, whereas others consider 60,000 words to be the minimum ('It should be more than a Masters thesis'). (CERES PhD books generally range from 160 to 220 pages of full text and 50 pages of references and annexes, with single line spacing). In the rare case of a joint PhD thesis (one book by two people) there are additional worries: should such a book be 'twice as big'? How to make sure that specific parts can be recognised as a product of one of the two authors?
- *Styles of presentation* are important as well. PhD books can contain words, tables, graphs, diagrams, maps, sketches, drawings, photographs, aerial photographs, and satellite images. There can be many 'formats', which can be presented as a 'flow', or in a more organised way (e.g. in boxes, or in separate book sections, and what about appendices?). Be aware of copy rights, and of correct referencing to sources, and authors/designers. In cases where research subjects get a voice or an image (e.g. in long quotes, in photographs, in stories) make sure that they have no objections to this (basic research ethics), or else that you make it impossible to recognise them (e.g. by using pseudonyms; sometimes even the village or town setting needs to be anonimised!).

- Writing a book is basically designing a *story*. In a research design there should already be some element of thinking about the way the story will be told, how you will draw conclusions from the research evidence and how these can be presented. It is also important to think about how the research story will be linked to other people's research stories (the way you refer to other literature). Some designing is necessary to be able to register the large variety of research notes and quotes that will be part of the research data, and how to arrange for a proper list of *references*, from the start. There are many PhD candidates who lose precious time at the end of their project by having to go back to libraries, and internet sites (if these still exist…) because they did not make proper reference notes before.
- *Networking* is important. How do PhD candidates make sure they will get comments from their supervisors, from other senior colleagues in their field, from peers, from local scholars working in the same research area, or on the same topic, from (local) authorities and policy makers, and from the local research population? At what stages would this be the most relevant? Consultation with relevant experts and peers, and with authorities, is generally seen as a must, but it can also create major problems (jealousy, stealing of ideas), and should be done diplomatically.
- Organising scientific and policy response may prove to be crucial in improving the *scientific and social relevance* of the research project. Response from supervisors and from the most important scientific peers is generally considered in the process of decision-making about the quality and acceptability of a PhD project. However specific attention could be required to acquire response from research subjects, and from people who will or could make use of the research findings for teaching purposes (academic or otherwise), for policy formulation, and for practical use.
- It may be too early to include a lot of *fine-tuning* in the research design as such, but can be helpful to start thinking about a catchy title (one that will stick, and be easily remembered), an eye-catching, well-designed book cover, proper and nicely written acknowledgments,[3] appropriate language editing, and lay out. Think about whether you should include an index and if so with what headings (concepts, authors, places).

[3] Take care not to forget people and agencies who would not be amused at being omitted; PhD candidates tend to forget those who played a role in the early phases of their project, as it is sometimes such a long time ago.

6. Aftercare

- It may be recommendable to think about some form of '*aftercare*' already during the course of a PhD project. What material can be published beyond the PhD thesis? How to make sure that your PhD thesis and publications will be sent to all the 'right' people, who could be important for your career, and whom you hope will make use of your findings? Which journals will get a copy of your book for review? And how can you enhance the impact of your work by mentioning your findings and approach in scientific journals, in popular media, in text books, on television, radio, or internet. What conferences and workshops are proper places to get people to know you and your work? Could you organise some yourself? (Co-organising scientific conferences in your field is often a nice way to become involved in publishing edited volumes, or special editions of journals, in other words, a major example of *visibility planning*). An important way of strengthening your academic position is by nurturing your academic *curriculum vitae*, and by making it presentable in ways which are regarded as 'proper' in the circles you want to enter (again, appreciation differs greatly; what is regarded as sloppy and unprofessional in one circle, could be regarded as 'posh' and arrogant in another). Of course *CV-management* should be practised immediately from the start, as an obvious way of career planning.

Is all of this relevant? Yes, most of it is. Is all of it 'normal'? It often is not, contributing to the detriment of scientific careers and having a negative effect on the pleasure of doing academic work in a professional way. Can PhD candidates succeed without doing all or most of this? Yes many do, but often at the expense of professionality and joy.

2.5 Issues and dilemmas: South African perspectives

During one supervisor workshop (Durban 2005), a number of additional topics were discussed, and ideas formulated:

- For many South African PhD candidates, doing a PhD project comes on top a load of other responsibilities such as teaching, academic administration, student support, and service to the community. Quite often the PhD is in fact a part-time activity, carried out at night, over weekends and during the holidays. The PhD for many students is a 'dream' that could easily become a nightmare. Better facilitation is clearly needed, as well as a hightened awareness of this situation among supervisors and university administrators.

- Quite a lot of cultural sensitivity is involved in the South African context. Supervisors and candidates often come from different cultural, social and economic backgrounds. It was regarded as essential for supervisors to be 'multi-culturally literate', being informed and sensitive about cultural differences. It is as wrong to ignore or deny these differences, as it is to overreact or overcompensate them. Supervisors should not confuse equality with equity. Treatment can never be equal, but it can be equitable. Some PhD candidates indeed need additional support, and special training, without treating this as 'favouritism'. There is no need for supervisors to deny their own cultural backgrounds. But at the same time they must leave the PhD candidate equally free to maintain his or her identity; in a way that some participants called 'culture-free supervision, which is at the same time culture-conscious'. Some specific training may be required for supervisors who are beginning to work cross-culturally, to avoid misunderstanding and conflict-ridden relationships based on a lack of cultural sensitivity.
- Many cultural communication problems and a lot of irritation arise from language misunderstandings. It is important to do a pre-admission assessment, including tests of English competency (e.g., the well-known TOEFL test, see http://www.ets.org). If PhD candidates are admitted who are not fluent in English, upgrading courses, and language editing facilities are a must, and should be included in the Training and Supervision Plan.
- Favouritism may destroy the relationships in a research group. Supervisors with many post-graduate candidates should avoid situations in which one candidate gets far more attention, resources, and facilities than others. Many participants in the workshop were of the opinion that although some competition between candidates may be inevitable, and can be healthy professionally, supervisors should avoid comparing candidate A with candidate B, or engage in a quality ranking of their PhD candidates. As long as minimal academic standards are maintained, PhD projects are generally so different that it is not possible, nor desirable to develop evaluative tools for a ranking of PhD projects. However, if departments use a grading system of final products (*cum laude*, with pleasure, pass) transparency about the criteria used for that type of grading is crucial.
- When becoming a PhD supervisor, it is important to maintain certain minimum standards. PhD supervisors should have a PhD themselves, and they should be active researchers, with acceptable publication levels and quality. The same should be self-evident for examiners. With the current internet-derived tools of quality measurement via citation indexes (e.g., using ISI or SCOPUS), or

Google Scholar, everyone can check if (potential) examiners and supervisors have an acceptable recent publication record themselves.

- Many PhD candidates lack financial means to ensure their geographical mobility, so as to be able to visit scholars in other parts of the country or abroad, to go to conferences, and to visit comparable research areas. Research departments should give more attention to facilitating and stimulating geographical mobility of their post-graduate students, and certainly of their PhD candidates. Co-supervision by supervisors coming from different geographical areas can be one of the tools to break through local, parochial attitudes.
- More transparency is needed regarding financial rewards if departments (and supervisors) have successful post-graduate projects, and about sharing mechanisms used to obtain these benefits, particularly if supervision is shared between different institutes, or universities (not to mention international teams).
- In the case of joint supervision, clarity with respect to roles, and to areas of specific expertise is crucial, as well as a continuous sharing of information (e.g., all email messages always copied to all supervisors), awareness and openness about differences in institutional cultures and in disciplinary 'norms'.
- South African supervisors should be more strongly encouraged to publish scientific research together with their PhD candidates (or even Masters students), and intentions for joint publications should be part and parcel of the Training and Supervision Plans (TSPs) of individual PhD candidates, as well as be stated in the annual plans of research departments. Some participants suggested that a 'culture of failure' should be created if PhD candidates 'only graduate', without a single journal publication, and without at least one publication together with their supervisor(s). It was acknowledged, though, that in some scientific disciplines this is seen as not very ethical, as young scholars should instead be stimulated to be independent researchers, and not be dependent on publications together with their supervisor(s).
- Examination can be a traumatic experience. Some participants suggested that all PhD candidates should have a right to see examiner's reports about their own work. There was a discussion about the pros and cons of the South African (= British) system of closed examination sessions, *vis-à-vis* the Dutch system of open, public examination sessions, which are highly ritualised. The differences between both systems with regard to the final product were also subject of discussion (in the Netherlands the defended PhD thesis is the final product; in the British/South African system candidates can, and often are asked to, rewrite sections, and resubmit a final thesis later).

- Major time losses occur between handing in the PhD manuscript, the actual defence of the thesis, and the final graduation. It was suggested that instead of one formal graduation, several graduation ceremonies during the year might minimise delays, and that departmental monitoring of the submission process can help to detect delays between submission and defence. Another idea was to increase the compensation for examination (if there is any), if the reports are handed in within agreed time frames.

2.6 Issues and dilemmas: Dutch perspectives

During a meeting in May 2006, a group of CERES members discussed their experiences with PhD supervision, and gave comments on the concept workbook in the company of Dr Anshu Padayachee and Prof. Wadee from South Africa, of Lolita van Toledo, the CERES policy advisor responsible for PhD training, and of Nelke van der Lans, head of the SANPAD office in the Netherlands. The meeting was chaired by Prof. Dietz (see appendix d). Most participants were related to the SANPAD programme, either as lecturers in the RCI programme, or as participants in SANPAD projects. Although some senior professors participated, who shared a lot of their extensive experience as PhD supervisors, most participants were among the younger members of CERES, had recently joined the ranks of PhD (co-)supervisors, and also shared some of their experiences as former PhD student. Many concerns were voiced, which were mostly in line with those coming from their South African colleagues. However, some additional points are worth mentioning.

- A major dilemma in the Dutch situation is the fact that there should always be a ‘promotor’ who is a full professor, together with the recommendation that supervisory teams are formed, which include non-professors as so-called co-promotors, or daily supervisors. Few Dutch institutions work with ‘mentors’, whereas many appoint daily supervisors, who often do most of the work. Some participants in the meeting called it a ‘feudal’ system, very hierarchical, and not giving enough credit to the non-professors in a supervisory team. It is connected to a system of professorships, that is not based on personal assessment (that is, you move to higher ranks if your academic CV is judged to be adequate for that rank), but on vacancies in university departments for regular positions, and on unclear procedures for so-called special professorships.
- The career prospects for young academics in the Netherlands (at least those in the social sciences and arts) have been rather poor during the last two decades, forcing many who would have liked to join academia to follow different career

paths. It is difficult for them to step back in at a later age, as it is also problematic for academics to leave their positions for some time and join professional agencies, as it jeopardises their chances of return ('career cracking'). With the current urge for more 'science-society encounters', and for 'more socially relevant scientific results', there are far too few people who have experienced 'boundary straddling'. More (mid- or late-career) practice-based PhDs are an important way to merge these different worlds, but at the same time it is complicated to supervise them or to get them accepted. Training supervisors and PhD candidates in 'boundary work' is an important challenge for departments and research schools, preferably together with agencies of practitioners.

- The strong dominance of senior supervisors over the system of PhD supervision and quality judgement, and the tendency to formulate research programmes in which individual PhD thesis subjects have to fit, is seen by some as a sure way of preserving vested interests, as an in-built form of academic conservatism, and as a disincentive for innovation, with regard to both content and form. There was an outcry for 'crazy ideas', by brilliant, independent-minded people, with chances of real academic breakthroughs.
- Teams of supervisors were generally seen as preferable for PhD candidates, as it makes them less dependent on single supervisors/'promotors'. However, in case of existing or growing conflicts amongst the supervisors within a team (e.g., differences of judgement bases on different disciplinary or institutional cultures, conflicts of interest, or - worse - personality clashes), there is usually not a good system of conflict management in place, and sometimes the failure of a PhD projects can be due to this lack. A 'third party' role by a head of department or by a director of a research school sometimes helps, but there are cases where the rot has gone too deep. On the other hand teams of two or three supervisors often have in-built mechanisms to correct each other in subtle ways, and to avoid the 'hostage' situations that can appear between single supervisors and their candidate. Mentors or other types of brokers (e.g., people working in personnel departments) could also play a useful role here, but were not considered necessary as long as there are adequate 'daily supervisors' in the team. Good research schools do have informal mechanisms available (and empathic supervisors around) to rescue 'stray' candidates from falling out of the system.
- A system should be established to channel complaints, without threatening the security that both supervisors and supervisees need in their personal and academic relationship, and without creating an atmosphere of ever-lasting

gossip. For solving real problems some form of confidential counselling should be accessible.

- Peer group formation is seen as a very important form of mutual support, and probably the most important 'asset' of research or graduate schools. However, the composition of peer groups then becomes an element of research strategy, as it is generally considered preferable to connect peers with overlapping research interests. The composition of a research department is also important: The mixture of disciplines and expertise, the combination of generic and specific knowledge, access to international and national knowledge hubs in the relevant domains, and access to funds, also for follow-up activities of graduates. In the case of small departments, or of small domain groups within a department, it becomes crucial to develop 'scale advantages' by creating larger (temporary) groups beyond one single research department. Shielding off PhD candidates from colleagues beyond their own institution (and from participating in national and international gatherings) is seen as a big academic offence, but one that still occurs among supervisors.
- It is an open door to state that cultural misunderstandings can endanger relationships in a PhD team, but it should be acknowledged that 'cultural' should not only be interpreted as 'foreign', or 'ethnic'. Differences between institutions, and between disciplines, as well as age and gender differences can also cause friction, and should be treated with care. In many cases cultural misunderstandings are the result of a lack of time, and of insufficient attention in handling communication barriers: ever-busy supervisors and shy or 'indirect' candidates not taking the time to understand each other's styles of communication. The 'Dutch' style of rather blunt, 'honest' ways of adressing issues quite often creates shocks beyond repair, when candidates have been engrained in a softer, more indirect, 'respectful' way of sharing opinions. It is useful for foreign students to read some (comic) books about their (temporary) hosts.
- An element of academic culture that creates major confrontations, and may precipitate failure, is the perceived 'clash' between qualitative and quantitative methods of data collection and data analysis, a clash that is sometimes perceived as a battle between disciplines ('economists' or 'psychologists' versus 'anthropologists'), but which also exists *within* each of these disciplines (for example described as 'positivist', and 'post-positivist' approaches). A broader training in the spectrum of research methods could be a useful way to expand one's horizon, but also a more respectful way of treating scholars who select one or the other of the research methods. If candidates and supervisors have

completely opposite ideas about research methodology, it might be wise to change to other supervisors, preferably not too late in the process.

- There is an overarching concern among performance evaluators with regard to the time it takes for PhD candidates to finish their work. There is a lot of anxiety in social science circles about the long delays (more than seven years for a PhD trajectory is not at all uncommon, and six years an average, even if the 'official time' is only four years). 'Straggling' often means loosing income, facilities, and sometimes also any serious supervision 'beyond the four years'. PhD candidates accept other jobs, and in those new jobs there is often very little time available for fininishing touches, let alone substantial work on the PhD manuscript. What initially seems 'only two months to go' can easily develop into a nightmare of many years of delay, and sometimes lead to the failure of a project. At CERES a lot of attention is currently given to monitoring the 'real' time PhD candidates actually work on their thesis, to acknowledge the many pregnancy leaves, parent leaves, in-between teaching and other jobs, and sick leaves, and subtract those periods of non-PhD work from the registered PhD time. It is also important to register the 'real time' spent on PhD projects by the many part-time PhD students. However, this solves only part of the problem (if there is a problem at all; some CERES members consider this to be a deplorable form of bureaucracy).
- A major part of the delays which occur during PhD trajectories are the result of problematic field work circumstances, often beyond the control of researchers and supervisors. Part of these problems can be contained by adequate local supervisors, and by embedding projects in local academic departments (but this is not at all sufficient, and sometimes adds to delays). It is usually very helpful (if only for ritual purposes) if the Dutch supervisor visits the field and the local supervisor and his/her institute, as well as local key persons. Supervisors are not enough aware of the many cases of post-fieldwork depressions (CERES) candidates suffer from upon returning to the Netherlands. Some social scientists formulate pleas for a greater number of comparative PhD projects, based on existing secondary (quantitative and/or qualitative) data, whereas others regard this as work that should be done by 'post-docs'.
- Many supervisors see it as their duty to go beyond mere PhD supervision, and try to groom their students for scholarship, and for broader academic life, including the ability to teach, to participate in the organisation of scientific conferences, and the editing of journals. PhD candidates who are exclusively working on their thesis are often seen as liabilities in academia ('a-social', 'teaching horrors', 'selfish') and beyond ('we need people who can solve a

problem and write texts in a few months, not in four, five or six years'; 'we need people who keep deadlines').

- A key problem PhD candidates in the social sciences are facing is a lack of focus, and the tendency to write 'diarrhoea' texts. It was seen as important to train social scientists to present their findings in different formats: in one-sentence statements, in 100 or 200 words abstracts, in three page briefs, in 15 page articles, and in book form. A major controversy among social scientists (and at CERES) concerns the pros and cons of defending PhD manuscripts based on published and submitted journal articles; nevertheless, this may be one way of solving the problem of book projects which may seem endless. This dispute is partly related to the issue of joint journal publications by supervisors and supervisees together, which is also a growing practice in the Netherlands.
- Language care is a prerequisite for successful academic writing. Both for supervisors and for PhD candidates constant care is needed, preferably as part of an in-built system of language training and editing. Some see admission on the basis of proven English language ability (e.g., a TOEFL test) as a necessity, others as a further unwanted bias in favour of 'Anglo-Saxon dominance'.
- Dissemination beyond the academic community was a major topic of debate in the meeting, as well as how this fits into priorities and funding arrangements. There is an ethical concern about 'reporting back to the research community' and a social concern about the need to make policy briefs, and about reporting back to funding agents and to 'the general public'. However, if these matters are regarded as important, they require specific training, funding, and facilitation! Often 'ghost writers' and science journalists are needed as intermediaries, but that entails the need for time and money to do so. Alternative ways are organising stakeholder conferences, compiling adequate websites and participating in practitioners' (and 'boundary') email lists.

3

Guidelines for Mentors

3.1 Introduction

The supervision of postgraduate students typically follows institutional guidelines where formal policies or procedures are in place for graduating students with a doctoral degree. However, from the students' perspective, the path leading to the doctorate is not always clear and may be filled with all kinds of hurdles.

Whilst this section of the Manual mainly draws on workshop discussions with postgraduate students from South Africa, the concept of mentoring is a universal phenomenon. During the course of their postgraduate studies, and particularly in the early stages, students are required to make an intellectual and, more importantly, an emotional leap from being Bachelors and Masters students to becoming PhD candidates. In some instances, as with individuals with professional qualifications, the primary degree is earned without much exposure to formal instruction in research, ethics and knowledge of the requirements for proceeding towards a doctoral qualification. Primary degree supervision typically consists of structured courses and with the student enjoying direct instruction and regular contact with a team of lecturers concerned. PhD candidates are, however, expected to be more independent, with access to the supervisor being less frequent and less structured than in a first degree. For the PhD student, contact with and feedback from supervisors depend very much on the rate of progress of the individual student concerned.

The mental leap required by students who find themselves in a PhD programme is enormous, and for some the gap between prior qualifications and the doctorate may appear insurmountable. While in earlier endeavours in a student's academic career, advice and guidance (even at the proposal level) was relatively easy to obtain, the PhD scenario is more like being left alone at sea! The expectations are that the student will now have greater insight into areas of research design, techniques and methodology. The students' perception of the supervisor is often that s/he expects a switch to be turned on in the student's head such that required information will be instantly at hand. Some students find this bewildering and confusing while others rise to the challenge. Often students look towards others to share these experiences and to seek emotional

and intellectual support. So, to whom should the student turn to? Affirmation is a high priority! In some cases, students arrive on campus without confirmation of residence, or any knowledge of the new environment, or without even having a clear PhD topic in mind. The entire experience of starting a doctorate can therefore be very unsettling.

The challenges for new doctoral students are not only to engage in academic work but to become familiar with the environment and to build new relationships, and then to engage in the required academic commitments. This then becomes the focus of the student. The Faculty, with its academic and non-academic staff and more experienced students, should set its sights on assisting the new recruit in adapting to and managing life over the next few years in what may be perceived as an inhospitable environment. Mentors can be seen as 'go-betweens' to enable this adaptation process, either as separate from the formal supervision structure (as in some cases in South Africa) or as connected to it as junior or 'daily' supervisors (which is more often the case in the Netherlands).

Not all individuals, be they staff members or senior students, have the makings of a mentor. Individuals who enjoy supporting others and sharing knowledge and time are far more suited to being mentors. The success of a mentor programme rests crucially on the supportive nature and academic capacity of the prospective mentor.

Individuals appointed as mentors or those volunteering to support new students need basic knowledge of the requirements for effective mentorship. To this end, workshops on mentoring are recommended to assist in identifying the requisites to be a mentor. The suggestions in this section emanate from previous workshops and role-play scenarios that have been undertaken to identify the features of effective mentors and the support systems required for effective mentorship.

3.2 Key aspects of mentoring[1]

The functions of mentorship

The challenges faced by mentors and hosts include providing direction and motivation to achieve common objectives (ultimately, the PhD degree, or more widely, becoming a scholar); assisting with research conception, design and methods; providing an

[1] The contributions of various individual and institutions throughout South Africa who have shared their experiences and practices are gratefully acknowledged.

academic, social and ethical perspective on research goals; and, finally, starting the process of providing guidance, support and structure to the new doctoral student.

Central to the idea of mentoring is to develop a relationship such that the helping nature of the interaction is focused on long-term and broadly defined achievements, not only on solving short-term problems. In this context both the mentor and student should gain intellectual, emotional and personal achievement from the experience.

The central functions of mentorship include:

- Provision of emotional and psychological support, and a person-to-person involvement;
- Direct assistance with regard to the student's career and professional development;
- Role modelling (preferably both ways);
- Reciprocity within the relationship in terms of derived benefits;
- Facilitating access to the particular system or context (campus life, departmental culture);
- Trust, confidence and mutual respect.

Who needs a mentor?

Everybody needs a mentor. This may not be applicable all of the time but throughout life, and particularly in academic life, a mentor of some sort is necessary. Most, if not all, individuals have had role models but not all have had the privilege of a personal mentor who guided them through some maze, difficulty or challenge at crucial times. Indeed, almost everyone has had a mentor in some form or another during their lives.

Students thrive with the right mentor at their side. However, it does not stop there for mentors are sorely needed for individuals at all levels in the academic arena and of teaching; even Deans and Vice-Chancellors require a coach or mentor at some point in their careers. This is also true in the business world where leaders lend support to their juniors and gain insight from those who have undertaken similar tasks, shouldered the emotional burdens and have lessons to share with new entrants to the corporate enterprise.

The need for a mentor varies from individual to individual and from circumstance to circumstance, but decision-making and looking towards the future is often clearer with support from those who have walked this road before.

Requirements of mentorship

The more obvious requirements or expectations of the mentor are to:

- Provide personal one-on-one support to a mentee;
- Possess knowledge of the needs of the mentee; and
- Hold the capacity to refer the mentee to appropriate personnel for specialised academic or psycho-social support.

Other procedures common to both individuals and to the institution/department should be put into place to make mentoring a functional and a rewarding experience. The institution could play an important role in the process by providing an enabling environment for mentor-student meetings and to support the mentor. Often, the mentor may not have the knowledge or is unable to provide adequate support. It is important that the mentor has access to a Faculty-appointed mentor coordinator or supervisor to turn to for such support. Training in mentorship, including providing funding resources and clarifying the role of the mentor in the process of supervision, is vital for the process.

It is generally thought that mentorship should be voluntary and only those individuals wishing to take on the responsibility would make the process successful. Reluctant mentors or those with expectations of perverse incentives such as payment or career advancement rarely make good mentors. Relationships between such mentors and students almost always break down leaving all concerned disillusioned and this may at times contribute to academic failure.

The stakeholders in this process are the institutions, departments, supervisor, mentor and the student. Some believe that a formal contract should exist to define each stakeholder's role and to be duly signed, etc. This however adds to the bureaucratic environment and is not necessarily conducive to the spirit of mentorship, *viz*. camaraderie, a helping hand and a socially interactive process.

Training

Training should include partnership responsibilities, knowledge of important campus sites such as offices of residence, financial aid, student administration, banks, restaurants, entertainment areas, safety and security measures, officers and offices, campus health offices, resources for guidance and counselling, sources for books (new and used), libraries and study areas. Experience with such training has demonstrated that, sadly, few students who were in the system for some time were aware of the range of available facilities.

Stress

Mentors, coordinators and supervisors must be able to identify signs of stress in a student. Stressed individuals in the course of their tenure may exhibit variable patterns of behaviour. The cause of the stress may be academic, personal or social.

Regardless of the cause, it is important to recognise stress, which may become apparent in the form of behavioural, cognitive or physiological symptoms. Behavioural stress is characterised by performance inefficiency, irritability, reduction in social sensitivity, pacing or hyperactive behaviour. Cognitive stress is evidenced by anticipatory anxiety and fearful or worrisome thinking. Physiological stress may be seen symptomatically in the form of mood swings, muscle tension, frequent headaches, gastro-intestinal disturbances and cardiovascular symptoms (increased heart rate, blood pressure and respiration).

Obviously these are not all of the warning signs. It is important to be wary of the tell-tale signs. Having identified the situation, the student should be referred for appropriate treatment or counselling.

Identifying mentors or mentorship structures

Depending on the structures within departments and available people, mentors may be the supervisors themselves, heads of research units, divisions or departments and senior students (who have been in the post-graduate programme for at least one year and who are familiar with the environment and post-graduate programme). The basic scenario is one where the PhD supervisor also becomes the mentor because of the lack of personnel. A further step may be afforded when a senior student, who is also under the supervision of the project leader (in the same area of research as the student), is asked to mentor the new incumbent. In cases where this person is not available and the supervisor is unable to mentor, a senior student in a similar or parallel project may be asked to mentor. Even though this approach may not necessarily be ideally conducive to the academic support of the student, it could potentially provide many of the benefits of mentoring.

In large units with many staff, an individual (normally a senior member of staff) is asked to become a mentor coordinator. This individual could act as the head of the mentorship programme to which mentors in the department may refer. The coordinator's role is to ensure that mentors are trained and have the necessary knowledge and support to fulfil the duties of a mentor. The coordinator may also be the initiator of the programme and generally obtains donor or departmental funding for the

mentor programme. Where such hierarchies do not exist, the supervisor/head of department usually takes on the responsibility of funding and providing the back-up for mentor consultation.

Key actors in mentoring

Successful mentoring depends on:

- *Selecting mentors*
  Selection of mentors should depend on the demonstration of sound academic performance in the past, an appropriate personality profile and temperament, leadership potential and a willingness to mentor.
- *Appointing a mentor coordinator*
  The institution should provide an individual who will act as the contact person to whom mentors may refer and be a source of information for student and mentor needs. The coordinator also provides an avenue for successful reporting and feedback processes.
- *Training mentors*
  Once mentors have been selected, it is the institution's responsibility to provide training in stress management, listening skills, time management, resource availability, leadership skills and the art of social mentoring, as well as to orientate both mentors and students on how to achieve rewarding partnerships.

Linking students to mentors

This is not an easy task. Merely linking a senior student to a newly enrolled individual may create problems. Likewise, the two of them being in the same field of study or living in the same residence should not be the only reason for the partnership. Senior students should be asked to mentor. It is advisable to allow new students a short independent settling-in time in which some (though superficial) liaisons may be made. The role of the mentor coordinator or supervisor in this instance is to be able to identify likely suitable mentors. Thereafter the prospective mentor should be asked for his/her interest in mentoring; followed by suggesting the possibility of mentoring the new student. If affirmative, the individual should then be offered the opportunity to mentor and be introduced to the student. Thereafter the social mentoring process should be allowed to take its course. In essence, mentoring is a two-way commitment between individuals based on honesty, realistic expectations and an understanding and appreciation of each other.

General requirements of a mentor

From the perspective of the student, the mentor should be able to at least be knowledgeable or assisting in providing the following:

- Commitment to the mentoring process;
- Guidance and academic support;
- Eeffective time management (this implies knowledge of the student's academic schedule, to be mindful of important lectures, seminars and journal clubs, etc.);
- Encouragement to the student to be well prepared for relevant courses;
- Motivation of self-study and preparation for research meetings;
- Actively addressing tutoring or supplemental instruction as required for the student's success (appropriate referral);
- Assistance in the setting up of study groups and self-support units with the student's peers;
- Reference of the student(s) to academic staff for specific academic problems, and to relevant personnel for psycho-social support;
- Limited personal counselling, and a positive attitude towards the process;
- Encouragement of participation in academic and non-academic matters;
- Regular reviews of the student's progress in both academic and non-academic areas;
- Identification of the student's needs and provision of avenues from which support may be obtained. These include offices of administration, financial aid, accommodation, libraries, study rooms, campus health, counsellors, banks and automatic teller machines, recreation and student societies;
- Familiarisation with the department, the faculty and the university environment;
- Assistance to the student in adjusting and coping with the stresses of the environment;
- Facilitation of an enabling environment.

Input expected from the student

For the mentoring process to be successful, the student should be willing to:

- Commit to the mentoring process;
- Commit time and energy;
- Establish clear research goals and work with the mentor to develop a pathway for achieving these goals;
- Accept constructive criticism;
- Meet regularly with the supervisor and/or mentor to discuss progress and review assignments, projects and progress;

- Respect and be mindful of the mentor's time, commitment to his/her own studies and responsibilities;
- Seek advice when required but not become overly dependent on the mentor;
- Review research progress regularly both independently and with the mentor.

Problems and dangers associated with mentoring

Having set out the expectations of both parties in the mentoring process, it is important to identify boundaries and be aware of pitfalls. Mentoring is personal and intimate and the process could come unstuck due to a number of factors. These include, in the first instance, a lack of motivation and commitment to mentoring. The mentor and/or the student may not be prepared to invest the time and energy required to facilitate the success of the undertaking. The lack of commitment could result in hurried and superficial interactions and in very few (if any) constructive interactions. Worse still, it could evolve into resentment and acrimonious interactions.

A situation may exist where the mentor may feel coerced into mentoring the student due to not being able to say no to the coordinator, needing to save face or for fear of a negative impact on his/her own career prospects. This would obviously lead to a reluctant mentor simply going through the motions, thereby depriving the student of the required commitment.

The student's failure to communicate his/her needs due to awkwardness or embarrassment or even to a lack of appropriate knowledge could lead to misunderstandings or even major hurdles. It is important that both the student and the mentor clearly state the goals and objectives of the partnership. Added to this, is the failure from both sides to discuss problems or potential problems at the outset. The breakdown in communication or understanding may become obvious at the initial meeting or only during later interactions where personal and academic pressures are not conveyed. It is possible that meetings will then loose their focus and become secondary to the current crises. This could cause both parties to become defensive and may lead to acrimonious meetings.

Another area of concern is the student's inability to interpret the mentor's intentions correctly. In these instances, the student may become overly dependent on the mentor both emotionally and academically.

A large risk to be guarded against is harassment, be it sexual, religious, academic or social (class distinctions). Harassment could begin with emotional over-dependence and incorrect or inappropriate interpretation of the mentor's intentions or *vice versa*. The consequences of such could lead to the academic failure of the student and mentor. Then there is the risk of conspiracy theories, superstition and general mistrust of the system or academic institution. In these situations the thought process deals mainly with these overriding perceptions. Consequently, the students find themselves being suspicious of the advice given and they start spending time evaluating the 'hidden messages'. An important factor is also language and past experiences. Failure of the mentoring process often results from a lack of understanding or a misinterpretation of what is being communicated.

In the majority of these situations, it is desirable for either or both parties to communicate honestly to highlight the situation. The resolution may be a direct one-to-one discussion or referrals to appropriate individuals such that, where possible, corrective action may be put into place or the problems may be overcome by a simple understanding of the needs of both the mentor and student. The coordinator or mechanisms set up to address difficulties may play important roles in resolving the distrustful, misjudged or undesirable situation.

It is desirable that there are regular interactions between the student, mentor and coordinator (or supervisor) to frequently monitor the mentoring process. Institutions could take a more formal approach and request monthly independent reports from both the student and mentor that would go to coordinator, supervisor or department head. Sensitive and diplomatic handling of any negative events is essential.

Benefits

The student could benefit from the programme in a variety of ways, including:

- Self-confidence and greater independence;
- Desire to pursue an academic career;
- Increased knowledge of the research programme, discipline, department and faculty/university culture;
- Easier adjustment to the programme, department and environment;
- A channel for airing problems;
- Acquisition of skills and 'street-wise' knowledge that would be useful at a postgraduate level and in future careers;
- Mentoring other future careers.

Conclusion

Obviously not every scenario or event in the mentoring process is provided here. The intention of this section is to provide insight into the major difficulties and possibilities during a study towards a postgraduate degree as related by individual experiences and gleaned from workshops. The principles remain a useful guide towards a successful mentoring programme.

Situations differ from institution to institution and would dictate the format of appropriate mentorship programmes. Adaptation of a mentoring system is highly dependent on the environment, on the mentor-student relationship as well as on the hierarchy and expectations of the department. This having been said, by applying the recommendations outlined here, all institutions initiating a mentor programme could ensure a pleasant and rewarding experience for their students who would then achieve their goals.

With regard to the academic component, mentors should be able to support the students by ensuring that the student is prepared or able to meet the deadlines for submission of applications, registrations, approval of research, and submission of research for examination, the major academic milestones of any PhD trajectory.

3.3 Interactions between supervisors, mentors and students: Scenario games

In mentorship training sessions it is often very useful to play games, and analyse their outcomes, with the intention to improve mentorship practices and overcome communication barriers. In this section we provide examples of these games, which have all been played at one or more of the SANPAD and CERES workshops discussed before.

A. Three examples of games

The following is a set staged for a successful, productive research unit within a University. The unit also provides teaching/service at undergraduate and postgraduate level. The unit comprises of a Head, who is a full professor, as well as 1 research professor, 2 associate professors, 4 postdoctoral research fellows, 7 PhD candidates, 7 Masters candidates, 4 Honours candidates, and 6 administrative/support staff (or whatever setup suits the team playing the game). A number of projects in the unit have been ongoing for the past 9 years and the duration of the newer projects is between 6 months and 2 years. Some projects are highly successful while some are floundering.

You are playing the game of being a member of this group, some in active roles, some in passive roles, as observers.

Task

The trials, tribulations and challenges faced by three individuals in the unit are under discussion by us as a group. We are required to examine the issues faced by the supervisor, mentor and student.

The aim of the exercise is to:

- Analyse and understand the complex interactions of the three individuals;
- Address the role and responsibility of each;
- Identify the areas which require attention and provide possible solutions.

SCENARIO A: SUPERVISOR

As head and professor of the unit you are very busy! What you would really like to do is to be able to undertake and personally supervise the research in your unit. There are, however, numerous demands from many quarters. Duties include:

1. The Faculty and research/project funding agencies have very specific and time-consuming financial accountability requirements, and you have to provide HR/IF management reports, regular research and teaching output reports, and your attendance is required in regular (monthly) meetings with the Dean and funding body representatives. [Note to Supervisor: add more if you want]
2. You are expected to serve on the faculty's executive committee and on the Senate of the university. The executive committee meets every six weeks and the Senate every two months. You are also expected to chair three faculty committees and to serve on five other committees. All committees are academic but not necessarily related to your area of expertise or research.
3. Your teaching commitments for the unit include formal lectures to (a) all post-graduate student groups where you teach research methodology and (b) undergraduate students in their 2nd and 3rd year of study where you instruct in several different areas.
4. Regular departmental journal club and research meetings are held. The latter covers research plan presentation, progress and discussions.
5. Whilst supervision of postgraduate research is shared, you personally supervise one Masters and one PhD candidate.

   (i) You have assigned a post-doctoral research fellow (who recently obtained his/her degree) as mentor to the new candidate;

   (ii) You also supervise the post-doctoral fellow;

   (iii) You meet with the two individuals independently of each other on a fortnightly basis and once a month as a group of three to discuss the PhD students' progress;

   (iv) As you are based in the same corridors as the candidates, you have sight of both individuals and could interact with them informally on a daily basis should you wish;

   (v)The post-doc's project is now in its 2nd year and the PhD project is at the end of the 1st year.

Even though some positive results are being obtained and data collection/experiments are ongoing, things are not what they seem!

- Recently, the research you are directing appears to have become sluggish.
- Your post-doc and PhD student do not report much activity/results from their projects - at times they even appear disgruntled.
- Some scheduled meetings have had to be cancelled/postponed either due to your commitments or because both the post-doc and PhD student had something 'important' that had come up.
- Your academic staff does not appear too supportive of you and while some don't comment or engage in discussions in the staff meetings, others appear somewhat negative and resentful of all the demands placed on them.

You have requested for a serious meeting with both mentor and student and the following questions are on your mind:

- What is really the issue with the students' projects?
- Why the lack of activity?
- Why is the mentor not reporting much back to you?

SCENARIO A: MENTOR (Post-doctoral fellow)

You completed your PhD 2,5 years ago and began your post-doctoral appointment as a lecturer 2 years ago. Although your supervisor is a charming and very powerful individual with many commitments to the faculty and department, you find that sometimes s/he is difficult to communicate with.

Your project is 2 years old and initially results were coming out at a fast pace. You found the project exciting, then you were asked to mentor a PhD student.....

Your issues are:

i) The student is not of the calibre you and your colleagues were when you were PhD students. S/he keeps asking questions and appears to lack initiative;

ii) The student does not appear focused on the project;

iii) Your regular meetings with the supervisor and student were easy at first but, more recently, meetings have been either postponed or cancelled. You do have a project of your own as well as other commitments;

iv) Sometimes you have to go back to the planning stages in order to remind the supervisor/student as to where the project started, where it is now and what should happen next. Are you the only one who knows what is going on?

v) You seem to be acting as the go-between for the student and supervisor and it is not easy getting them to actually talk on the same wavelength;

vi) [OPTIONAL] Then there are the interpersonal issues .....

SCENARIO A: STUDENT

You completed your masters at your local university before joining the unit just about a year ago. Your initial opinion was that your mentor is very hardworking and supportive. He/she made an effort to help you settle in and get your project proposal done and generally took you under his/her wing. The project was going extremely well but, more recently, everything seems to be going wrong.

i) The data you have catalogued in the last three months seems confusing;
ii) Your mentor used to be very approachable but now is abrupt when you have questions. When you have questions you are told to find the information yourself. This would not be a problem if you knew where to look;
iii) Your mentor seems less friendly and the initial warmth is no longer there;
iv) Your supervisor is so distracted and is not accessible;
v) You are beginning to question why you are doing this;
vi) [OPTIONAL] Then there are the interpersonal issues .....

SCENARIO B: SUPERVISOR/MENTOR (Post-doctoral fellow)

You completed your PhD 5 years ago and completed your post-doctoral appointment as a lecturer 2 years ago. You are currently a senior lecturer in the department and your Head of Department is brilliant but very demanding.

- You have established a research programme within the overall aims of the department;
- You have 1 PhD student to supervise/mentor.

Your issues are:

i) Your project has run very well but how do they expect you to help students, teach and mark undergraduate test and exams, attend meetings and still collate and write up data for publication? You really want to be a research professor like your supervisor, but all those distractions are killing you.

ii) Then there is the PhD student you mentor.... How can you mentor someone who doesn't know enough? When you were a PhD student you and your friends were always burning the midnight oil, nobody spoon-fed you. If you didn't know, you found out by reading the literature and looking things up. Now all you get are questions and you see very little effort being made by the student to find answers. In your opinion, they don't make 'em like they used to.

iii) When you meet the HoD alone to report on the student, s/he seems to make excuses for the student and you aren't getting the support you think you should.

iv) You don't think the HoD has a real handle on the project or the aims of the departments/research activities and has 'pie in the sky' ideas. You are 'the man on the ground'. You know what is happening and what the issues are.

v) You seem to be acting as the go-between for the student and department and it is not easy getting them to actually talk on the same wavelength. The student seems to have lost the plot and is not with the programme; while the HoD appears to be centred on personal goals only.

vi) [OPTIONAL] Then there are the interpersonal issues .....

It is time to get things straight and organise a meeting with the student!

SCENARIO B: STUDENT

You completed your Masters degree at your local university before joining the unit just about a year ago. Your initial opinion was that your supervisor and your mentor are very hardworking and supportive. S/he made an effort to help you settle in and get your project proposal done and generally took you under his/her wing. The project was going extremely well but, more recently, things seem to have lost their momentum.

i) The project is so different from your Masters work. The data you have collected do not seem to be what you, your supervisor or mentor expected;
ii) Your mentor is so irritable lately. There were times when you first joined the unit that you would socialise and have fun together but now things are totally different;
iii) In answer to your questions, you mentor now brushes you of with 'look it up' ... You wish s/he would tell you where. You are trying but you need a bit of direction;
iv) Meetings with your mentor/supervisor are becoming difficult. All you seem to hear is that your outputs are not good enough! More importantly, the project seems to be rudderless. As for the Head of Department, s/he doesn't even know that you exist! Yet when you joined the programme, the promises, the hopes, the ...;
v) [OPTIONAL] Then there are the interpersonal issues .....

Now the postdoctoral fellow who says he is your mentor wants you to come and talk about the problems you seem to have….

SCENARIO C: SUPERVISOR

You are a research professor in the unit and very involved in your current research projects. You are expected to serve on several faculty committees, teach undergraduate students, set and mark examination papers, ensure that the research unit has adequate resources (e.g., consumables, equipment, etc.) and be responsible for health and safety issues. This is in addition to supervising a post-doctoral research fellow, a PhD candidate and two Masters and one Honours student.

Your challenges/difficulties are:
i) Your head of department is making increased demands on your time. S/he is burdening you with more administrative duties each day and s/he often misses scheduled departmental meetings. You literally run the unit. What is s/he really up to?;
ii) Lately, the research you are directing appears to be slowing down. Your post-doc and PhD student report little activity/results from their projects - at times they appear dissatisfied or even disinterested;
iii) Some scheduled meetings have had to be cancelled/postponed due to either your commitments or those of the post-doc/student;
iv) The academic staff does not appear too supportive of you and whilst they don't openly comment or engage in discussions in the staff meetings regarding the demands placed on them, there is a definite negative air in the unit;
v) Your post-doc complains that the PhD student does not read much, does not know enough about the methodology, lacks enthusiasm, etc.;
vi) The post-doc's projects are running well - but s/he (and you) can't seem to find the time to write them up for possible publication.....

Your relationship with the post doc (mentor) appears strained and you believe that the PhD student is progressing well. There is an under-current suggesting that the post-doc is undermining your position as supervisor.

It is really time for a meeting between the three of you!

SCENARIO C: MENTOR (Post-doctoral fellow)

You completed your PhD 2½ years ago and began your post-doctoral appointment as a lecturer 2 years ago. Your supervisor is brilliant but very demanding.

Your issues are:

i)Your project has run very well but how do they expect you to help other students, teach and mark undergraduate test and exams, attend meetings and still collate and write up data for publication? You really want to be a research professor like your supervisor.... but for all the distractions;

ii) Then there is the PhD student you mentor.... How can you mentor someone who doesn't know enough? When you were a PhD student you and your friends were always burning the midnight oil, nobody spoon-fed you. If you didn't know, you found out by reading the literature and looking things up. Now all you get are questions and you see very little effort being made by the student to find answers. In your opinion, they don't make 'em like they used to;

iii) When you meet the supervisor alone to report on the student, s/he seems to make excuses for the student and you aren't getting the support you think you should;

iv) You don't think the supervisor has a real handle on the project and has 'pie in the sky' ideas. You are the man on the ground you know what is happening what the issues are;

v) You seem to be acting as the go-between for the student and supervisor and it is not easy getting them to actually talk on the same wavelength;

vi) [OPTIONAL] Then there are the interpersonal issues .....

SCENARIO C: STUDENT

You completed your masters at your local university before joining the unit just about a year ago. Your initial opinion was that your mentor is very hardworking and supportive. He/she made an effort to help you settle in and get your project proposal done and generally took you under his/her wing. The project was going extremely well but, more recently, things seem to have lost their momentum.

i) The project is so different from your Masters work. The data you have collected do not seem to be what you, your supervisor or mentor expected.
ii) Your mentor is so irritable lately. There were times when you first joined the unit that you would socialise and have fun together but now things are totally different.
iii) In answer to your questions, you mentor now brushes you of with 'look it up' ... You wish he/she would tell you where. You are trying but you need a bit of direction.
iv) Meetings with your mentor and supervisor are becoming difficult, all they seem to do is argue. Who is the more knowledgeable of the two?
v) [OPTIONAL] Then there are the interpersonal issues .....

B Additional game

The PhD Game (http://www.st-edmunds.cam.ac.uk/~kw10004/phdgam/) can be found on the two middle pages of this manual.

C Games to handle a crisis

Unlike the scenarios in part A, here things have already become too difficult to handle in the context of a research department, and a 'third party' has been asked to intervene and to have a meeting with the struggling parties of a supervisor and a PhD candidate. So in each game there is a PhD candidate, a supervisor and a chairperson from elsewhere who acts as a problem solver…

CASE 1

The PhD candidate: You have done a good research and you are quite advanced with your write up. You are at the end of your third PhD year, and you only have to do one analytical chapter, the concluding chapter, and a few final touches. This would take you about seven months, if all goes well. Your relationship with your supervisor has been good, although not very personal, or frequent. In his eyes you are a promising scientist 'who can do it alone'. You suddenly got a job offer you can't refuse: a major business company in South Africa offers you a junior executive position, which will be very intensive. You should start within three months, and afterwards there will not be much time left to work on your PhD, they told you. For them your PhD degree is irrelevant, they say, and you can make a career without having a PhD. Now you have to tell your professor that you want to get that job, and that your PhD project will be 'postponed' (if not terminated).

The supervisor: One of your PhD candidates is a very bright lady, whose work is very good and who is almost ready with her PhD dissertation. She is at the end of her third PhD year, and she has to do one analytical chapter, the concluding chapter, and a few final touches. This would take her about seven months, if all goes well. Your relationship with your PhD candidate has been good, although not very personal, or frequent. You think that she is the type of student, 'who can do it alone'. You very much like to have her continue as your assistant after her PhD, and you even think that she might be the right person to take over your department later. Now she suddenly comes to you with bad news: a major business company in South Africa offers her a junior executive position, which will be very intensive. She should start within three months, and afterwards there will not be much time left to work on her PhD, they told her. For them her PhD degree is irrelevant, they say, and she can make a career without having a PhD. How do you convince her to finalise the PhD project?

CASE 2

The PhD candidate: Your PhD project is almost ready. Your results are very interesting, and you have even prepared two articles for nice journals in your field. You have not told your supervisor yet; your relationship with the supervisor has become a bit tense lately. After a promising start he did not give a lot of attention to your work, although you always gave him your results, and he has seen major drafts of your thesis. You had an appointment with your supervisor in which you told him about your plans to publish two articles. He suddenly confronts you with the fact that he has already submitted two publications to journals, of which he is close to the editorial board, and in which he mentions you in a footnote. He says that you have worked in his institute, with 'his' money, and that the results of your work are the property of his institute. He has every right to publish the results, and that will also 'shine' on you. However, it also means that you cannot publish your own articles, without his permission, and he does not want to give you that permission. You should have told him before.

The supervisor: A PhD project of one of your best students is almost ready**.** The results are very interesting, and you have even prepared two articles for nice journals in your field, based on those results. You very much need these publications, under your name, because your departmental head has told you that you do not publish enough. The PhD candidate has worked under your authority, with money from your institute, and with your input. Your relationship with the PhD candidate has become tense, because he never tells you about his plans. Now the PhD candidate has come to your office and tells you he wants to submit two articles under his own name, about the same topics about which you have also prepared your articles. You tell the PhD candidate that you do not give him permission, and the PhD candidate has asked for mediation.

CASE 3

The PhD candidate: You are in your second year. You have always submitted chapters about your work on time, but in three of the four cases you have not received any real responses, other than: 'it looks good, go on'. One time the response was only about spelling errors. You want more and better comments, and you have gone to two other professors, elsewhere in the country, and they have given you good feedback. Your professor has discovered that and he tells you that he will never tolerate that again. You cannot accept that. What to do?

The supervisor: You have a PhD candidate in his/her second year, who is fast in submitting chapters. Your time schedule is very full, and you did not have time to look at those chapters seriously. Looking at them superficially you think they are ok, and you have told the PhD candidate. Now you have discovered that your PhD candidate goes to two colleagues elsewhere, who are not particularly your best friends. You think they want to 'steal' your PhD candidate. You tell the PhD candidate that you do not accept her/his meetings with these two professors, and now your PhD candidate has become very cross with you. What to do?

CASE 4

The PhD candidate: You have been trained as a number cruncher, and you like statistics. Your PhD supervisor comes from the same background, and is very critical, even disrespectful of those colleagues who have gradually or abruptly shifted to more qualitative, 'post-modern' approaches. 'That is journalism, or worse, not science!' he exclaims during meetings. He resists methodology courses in which 'nonsense like discourse analysis' is being tought, and 'action research should be done in NGOs, not in universities!'. For part of your fieldwork you have recently been inspired by colleagues who have worked with focus group interviews, and with, what these colleagues called 'thick description'. You want to devote at least one chapter of your PhD thesis on the bewildering results of your findings, which seem to undermine the data that you earlier gathered using a standard questionnaire design. In your last 'message from the field' you have written an enthousiastic email message to the 'home front' (but not to your supervisor), and you are a bit anxious about your first post-fieldwork meeting with your supervisor…

The supervisor: You have a very dedicated, although somewhat unstable PhD candidate, who used to be your favourite in statistical analysis. You have hired her for a very difficult PhD project, which you have secured from a funding agency with scholars who want to uphold the academic standard of the discipline against all types of undermining tendencies from the 'soft sciences'. Your PhD student has very successfully done all the necessary statistical analyses and the PhD project gives you a lot of pride. What a shock to read a recent email message of your candidate (which she did not even have the courage to send to you!) in which she wants to add a lot of nonsense. You can never allow that and it would also ruin your status amongst your colleagues. You are one of the remaining strongholds of quantitative analysis! She probably also comes with a suggestion to add the new 'qualitative' researcher from the methodology department to the supervisory team. That woman does not even know the difference between a mode and a median! You really need to talk to your candidate before it is too late!

3.4 Organising supervisor and mentor training

Based on two experimental supervisor's workshops in South Africa, we can suggest guidelines for successful supervisor and mentor training sessions.

The time needed for the workshops is two-and-a-half days, in which the last half day is devoted to bringing together supervisors and PhD candidates, to discuss their experiences with, and suggestions about the most fruitful supervisor-candidate relationship, and - in cases where these do not yet exist - to discuss the contours of a training and supervision plan. These one-to-one sessions are introduced by giving a summary to all, supervisors and PhD candidates, of the findings of the two prior days in which the supervisors have met. In case no PhD candidates are present this last half day of the programme is not necessary, and the programme can then be restricted to two days.

During the first day the focus is on supervision as such, with the following elements of the programme:

Morning programme:

- An introduction to the workshop programme, and a discussion about the 'state of affairs' of PhD supervision, and of PhD/post-graduate programmes and their output;
- Aan icebreaker, e.g. in the form of the 'PhD game' (see elsewhere in this workbook);
- In teams of two participants who don't know each other well: talk with the other person about the memories of your own PhD, and give a summary of those 'memories of my neighbour' in a plenary session.

Afternoon session:

- An introductory lecture about 'styles of supervision', with the typology presented in section 4 of this workbook; followed by discussion about the relevance of this typology;
- A discussion in small groups about own experiences with past and current PhD/post-graduate supervisions; and experiences with problems and with problem solving;

- Possibly a few games, with teams of three participants who play the roles of a supervisor, a PhD candidate, and a mediator (extra people could be observers; see the examples above);
- A plenary session with conclusions about styles of supervision and suggestions of problem detection and problem solving (e.g. based on the games given before).

Evening programme:

- Informal discussions to continue exchange of experiences.

During the second day the attention shifts to mentoring.

Morning session:

- A lecture and discussion about the importance of mentoring;
- Discussion in small groups about experiences in various institutions;
- Plenary session based on the inventories of local situations and experiences.

Afternoon session:

- Games about mentoring situations (see examples given above);
- A plenary discussion about the interpretation of the games;
- A session discussing the elements of a training and supervision plan, and the contents of proper training about research designs.

When there is less time available, a one-day programme may be designed:

a) A round of introduction in which all candidates tell their story about experiences with PhD supervision and/or their memories of being a PhD candidate themselves;
b) A discussion about styles of supervision (see section 4 of this workbook);
c) A discussion about issues and dilemmas as experienced in PhD supervision (see sections 2.5 and 2.6 of this workbook);
d) A discussion about mentoring, preferably with at least one game (see section 3.3 of this workbook);
e) A discussion about the different expectations about measuring the success of PhD projects (see sections 2.2 and 2.4 of this workbook).

Parts a-c can be dealt with in a morning session, and parts d-e in an afternoon session.

When there is more time available, additional modules could be added, e.g.,

- On academic leadership;

- On negotiation and conflict management;
- On communication styles and effective discussion techniques;
- On time management;
- On styles of learning and of 'organisational learning' (see for example http://www.commonknowledge.org).

It would be good to have follow-up meetings, and a kind of peer groups for 'intervision training'. And it is generally useful to share experiences with current methodology textbooks (see section 5 of this workbook).

The training sessions should pay considerable attention to the relationship between supervisor and supervisee, the subject of the fourth section of this workbook.

3.5 Literature

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Phillips-Jones, L. (1982) *Mentors and proteges - how to establish, strengthen and get the most from a mentor/protege relationship*, New York: Arbor House.
Tuck, R. (1993) *The nature of mentoring*, Birmingham: SEDA Publications, The New Academic, pp. 25-6.
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4

The relationship between PhD candidate and supervisor

4.1 Styles of supervision: A typology

Every PhD supervisor is different and every PhD candidate as well. Hence, relationships between a supervisor and a PhD candidate are full of idiosyncrasies and peculiarities. Many are the stories about typically eccentric professors with odd habits. Equally, among professors, memories of strange misunderstandings between themselves and their PhD candidates form part of their discussions over drinks. However, there turns out to be some order in this chaos. During the two SANPAD supervisory workshops and during CERES training courses we experimented with an approach in which a typology of possible relationships was designed. Participants in these workshops were first asked to position their own relationship with their former PhD supervisor within this typology. As a second step they were requested to do the same for each of their prior and current PhD supervision relationships. And indeed, there appeared to be order in the chaos. Let us first look at the typology as such.

In discussing *styles of supervision* there are three important dimensions:

- Relationship behaviour: businesslike or personal;
- Intensity of task behaviour: more or less intensive;
- Orientation of task behaviour: product or process orientation.

It is important to remember that these are 'ideal types' and that in the real world there is often an overlap between and among these categories or types; yet, they allow us to become aware of dominant patterns of supervisor styles and behaviours.

4.2 Types of supervision

Businesslike behaviour can be defined as a type of relationship where supervisor and PhD candidate first and foremost focus on their work: the research to be done, the research design, the progress of analysis, writing, and publication strategies. Personal elements are less important, and in extreme cases, regarded as completely irrelevant or

taboo for discussion.

Personal behaviour is the opposite: the focus is largely on personal matters, and in extreme cases work is hardly ever mentioned. The supervisor knows, or tries to know 'everything' about the personal circumstances and character of the PhD candidate, and during meetings personal affairs and emotions get a lot of attention. Often the relationship gets the character of a personal or family friendship, sometimes going even further than that.

Task behaviour has an intensity side and an orientation side to it. The frequency of contact between supervisor and supervisee can be reduced to a minimum, with hardly any time and energy invested, or can indeed be very intensive, with daily meetings, and lots of joint activities. However, if there is a substantial relationship, it can be of two kinds: a product orientation or a process orientation. In extreme cases of *product* orientation meetings are always about the results, with a tendency to focus on concept publications or chapters. In extreme cases of *process* orientation meetings are never about results, but always about the process needed to achieve those results. In the first case supervisors generally have schedules of meetings about the discussion of written chapters, and they tend to stick to deadlines. In the second case supervisors see themselves mainly as process managers, stimulating candidates to 'grow'. If candidates are confronted with delays in writing, or 'writer's blocks', the first type of supervisor will cancel planned meetings, and will only want to meet if there is a written product to be discussed. The second type of supervisor will try to solve the deadlock, and organise intensive meetings to do so. On the other hand, sometimes the more extreme types of process managers can be very superficial or negligent when there are products (chapters, or the thesis as a whole) to be discussed.

If we look at this typology in a systematic way, six matrix cells can be differentiated, and names given to each of the six styles of supervision.[1]

[1] Using a typology of three variables and two categories in each variable, there are technically eight cells. However, where the task orientation is rather minimal no further differentiation is made between process and product orientation.

TABLE 4.1 TYPOLOGY OF SUPERVISOR-PHD CANDIDATE RELATIONSHIPS

RELATIONSHIP ORIENTATION	TASK ORIENTATION		
	NO/LITTLE	YES PROCESS	YES PRODUCT
BUSINESSLIKE	'delegater'	expert guide: • director • innovator • coordinator • monitor • broker	quality controller
PERSONAL	friend	coach	co-writer

We will briefly sketch the characteristics of each of these six types, and focus first on the role of the supervisor. Of course we should add that a relationship with a PhD candidate also depends on the degree of independence, 'self-security', expertise, maturity, motivation, and commitment, ability to articulate wishes, communication abilities and styles of both the candidate and the supervisor. It also matters if there is only one supervisor, or if there are more, and if one of those plays a role of 'daily supervisor'.

The delegater: low intensity, and businesslike

These supervisors are often deans, heads of departments, or leaders of large research programmes. They successfully acquire PhD projects, and often are approached to do so because of their prestige in funding circles. However, they do not really have time to be fully engaged in the actual task of supervision, and often this is 'part of the deal' (although the funding agency might not be aware of it, or be happy about it). 'Delegaters' often tend to 'manage a research empire', in which the real work of supervising PhD candidates is left to others, to whom the 'real supervision' is entrusted. However, on paper they are accountable to the funding agent, and when candidates do their exams, or graduate, they have to play a role, and they are also formally responsible for the progress and for the final reports to funding agents. The 'delegater' could also be called the *entruster*, *devolver*, or *transferer* of PhD supervision responsibilities.

The friend: low intensity, but personal

These supervisors never talk about the contents of the research work or only very rarely do so. Often they have known the PhD candidate as a former student, with whom a friendly relationship has developed, either as a family friend, or as a colleague, and they have supported him/her to start doing a PhD. Meetings are often at home, either that of the supervisor, or of the candidate, or in 'pleasant places' outside work. Beyond the occasional question of 'how things are going', there is little contact about either progress or products. However, there may be regular talks about all other sorts of topics. Like in all friendships, the supervisor is interested in the person, and if s/he feels that 'something is wrong', s/he will try to solve the problem, but indirectly. There is an element of avoiding confrontations, in order not to jeopardise the friendship. Other words for 'friend' could be: *supporter*, *buddy*, or *confidant*.

The expert guide: higher intensity, businesslike and process-oriented

These supervisors keep a distance towards their candidates as far as personal elements are involved. Some do not know, or do not want to know, about the family/household background of their candidates, and never visit them at home. They see their role mainly as stimulating a process of work improvement, and help their candidates to 'grow' as a scientist. Several types of expertise can be differentiated, and hence the expert guide has quite a number of sub-roles:[2]

a) The *director*: the supervisor who focuses on guiding the candidate in certain theoretical and methodological directions, paying a lot of attention to theoretical embeddedness, methodological issues, and the research design; these supervisors will strongly stimulate their candidates to consult relevant journals, and engage in discussions with many relevant experts in the field; they will encourage them to go to methods courses, to 'improve your academic writing' courses, and the like; they will also motivate the candidate to perform at conferences, in workshops, and in faculty meetings, and put a lot of time into preparing candidates for these performances, focused on argumentation, and analysis. If supervisors go to the 'field' for fieldwork supervision, they tend to focus on the quality of data collection, on the chain of argumentation and on the roles the various sources of knowledge gathering could play; other words to describe this sub-style would be *master*, *authority*, or *specialist*.
b) The *innovator*: the supervisor who encourages pioneering thoughts, on the edge of current scientific thinking; someone who has a vision of social and scientific

[2] Here we would like to acknowledge a very useful publication in Paradigms (Khan and Lackay 2005), based on Quinn et al, 1990, and Vilkinas, 2002 (thanks to Prof. Theo Haupt of CPUT). We will come back to Khan and Lackay's contribution later.

change, and the ability to stimulate creative ideas.

c) The *coordinator* always puts an emphasis on work schedules, on adhering to deadlines, and on process planning; in case of group supervision, or joint research the coordinator will make sure that the various parties perform their tasks in an orderly fashion.
d) The *monitor* always measures progress against work schedules, and is generally very active in making summary notes of meetings, and in writing the history of the project.
e) The *broker* will ensure that other parties (in or outside the department; funding agencies) deliver funds and assistance to the candidate and the research project; s/he will maintain contacts with a wide variety of network partners, who might provide useful support later.

The coach: higher intensity, more personal, and process-oriented

The *coach* is also deeply committed to the development of a candidate, but not so much in relation to their PhD job as such, or to the contents of their work, but in the sense of personality development. They will give emphasis to styles of performance in public, and in scientific fora. They will stimulate candidates to go to presentation training courses and before examination they will suggest 'mock exams' and encourage candidates to go to many PhD examinations (if these are public affairs, as they are in the Netherlands). They try to understand the personality of the candidate, and are aware of their personal circumstances. Whenever there are problems at home, or with the (psychological) health of the candidate, the coach will try to contribute to finding solutions. The coach is also interested in stimulating the scientific career of candidates beyond their PhD, and actively tries to assist them in networking. During the first phases of the PhD training coaches are often involved in facilitation as well: they give advice about time management, funding, library, information and other resources, and there is or should be a discussion of research ethics, and 'proper research etiquette' (and of what happens in cases of misconduct, like plagiarism, financial dishonesty, sexual harassment, and theft of intellectual property rights). The 'coach' could also be named *adviser*, *mentor*, *tutor*, *trainer*, or even *pastor* or *therapist*. Some coaches put major emphasis on a role as *facilitator*.

The quality controller: higher intensity, businesslike and product-oriented

These supervisors are mainly concerned about the written products of their candidates, and continuously judge those products on aspects of scientific quality. They only want to meet for discussion after a concept chapter or publication has been handed in. They will always stimulate their candidates to go for the most prestigious journals, and to the

most influential conferences in their field. Their comments are often of a 'judging' kind, without detailed and supportive suggestions for improvements; 'they have to learn it the hard way'. *Quality controllers* can become extremely annoyed if candidates do not work according to the agreed schedule, and they are very conscious of time lines, and deadlines. If there is an agreed and restricted period for supervision (for example when the funding agency provides funds for three years), they will generally refuse to continue substantial supervision beyond that period, and will support the department's decision to no longer facilitate the candidate (no room, no computer, cancelled institute email address). Other terms that could be used are *producer*, *auditor*, *assessor*, or *grader*.

The co-writer: higher intensity, more personal, product-oriented

The co-writer is a type of supervisor who is very product-oriented as well, but who will put a lot of time and energy into writing or designing products together with the PhD candidate, and is always busy 'correcting mistakes', and suggesting alternative texts. There is a lot of emphasis on language, both on 'concepts', and on expression, on spelling, and on communication in general ('how to reach your audience'). Candidates always get their work back full of 'red marks', or – if they have an 'electronic' relationship – full of 'tracked changes'. After two or three failed attempts to improve the style of reasoning or writing, some supervisors will take over, and 'suggest' sentences, paragraphs, or even major parts of the thesis. Some will hire the services of professional editors for support. Most 'co-writer' supervisors try to understand the reasons for inadequate ('not-yet adequate') quality by trying to get to know more about the candidate and his/her training. Other words for 'co-writer' could be: *editor*, *product advisor*, *scientific language assistant* or *trainer*, *corrector*, *reviser*.

4.3 Types of PhD candidates, culture and dynamics

Supervisory styles have to do with the personality and position of the supervisor(s), but they also relate to the personality and position of the PhD candidate. Some candidates have a very independent attitude, and they want to do the job alone. They would prefer a *delegater*, instead of a 'circus of supervision', and they want to keep the supervisor at a distance. In extreme cases they meet once at the beginning of the trajectory, and the next time, a few years along the line, the candidate presents a full product, and graduates on the basis of that product, without a single word having been exchanged in between. These types of candidates do not like being instructed to go to courses; if they need training, they will organise it themselves.

Some PhD candidates prefer a personal relationship with their supervisor, as long as there is not much discussion (or even none at all) about the progress of the PhD work, or its products. 'You will see it when I am ready'. If problems arise (for example about research funds, or about facilities) they will spread word in the circle around the supervisor, and expect 'their friend' to become aware of this through the grapevine, and work on a solution.

There are many PhD candidates who would like to keep the relationship businesslike, and who are not keen on any interference in their personal lives. Businesslike, product-task oriented personalities like defined roles, clear goals, planned timing, agreed communication patterns and behaviour, and reliability from both sides. They find it irrelevant, and sometimes even a bit confronting, if supervisors know or wish to know about their personal situation. However, they like being guided to become a good scientist, and they prefer 'cool', 'efficient' meetings, with the supervisor giving them useful suggestions about 'what to do next', and on 'how to improve'. In some cases, they would not mind, or even like, to be informed constantly whether they are on the right track, and they prefer supervisors who invariably create an 'experience of examination' during every meeting. They always try their best during these meetings, and like being judged on the quality of their performance.

On the other hand, there are PhD candidates who abhor such business-like behaviour, and who cannot function without a personal interest in their lives as a whole. Personal-relationship, process-task personalities are personality-oriented and empathic, enjoying social-emotional bonds with trustful and fluid arrangements. They take pleasure in meetings that start off with some 'small talk', and they like to share experiences beyond the PhD work. Some would like to get continuous advice on their performance, together with an acknowledgment of their whole selves; others prefer to focus on their written work, but expect a lot of detailed, to-the-point suggestions for improvement. They like their supervisors to take co-responsibility for really difficult parts of the analysis, or for the writing process, either by doing the job together, or by hiring expertise for expert assistance.

Chemistry

The success of a supervisor-PhD candidate relationship partly depends on what is often vaguely called the 'chemistry' between them. Usually the two have met before, for example because the PhD candidate was a former student of the supervisor. In case of incompatibility, this would have become evident before, so it is unlikely that people who really do not like each other, and have experienced so before, will start the

arduous journey of doing a PhD project together. Still, cases of 'incompatibility' may emerge later when bureaucratic procedures are started and candidates are accepted for a PhD project on the basis of their written academic curriculum vitae, with supervisors being 'accepted' by them without much or any prior contact. Things can go wrong, and this is often quite clear from the early phases of a project onwards. Another possibility is that things occur between supervisor and PhD candidate that make them change their preferred styles. Relationships may become too personal, giving rise to tensions that can only be solved completely if both supervisor and candidate agree that they should behave in a more 'businesslike' manner. Particularly when candidates and supervisors spend some time together 'in the field', (far) away from home, each may encounter characteristics in the other which may jeopardize the relationship. Again, this can sometimes only be solved by agreed changes in behaviour (or a settled 'truce', as long as the PhD project is ongoing), or else by both going their separate ways, in which case the PhD candidate has to start looking for another supervisor.

Departmental culture

Something which may also influence the relationship is the research (and power) culture in the department, and institutional changes taking place during a PhD trajectory. If departments hire professionals for editing scientific work, or have in-built training facilities for courses in 'writing academic English', the editing role of a supervisor may become less relevant (and rather expensive to spend valuable time on). In cases where departments set up a fully institutionalised mentoring system (see elsewhere in this book) the role of coach may no longer be played by a PhD supervisor. Some (well endowed) departments have more or less formalised these roles in separate functions, with a dean playing the role of 'delegater', an institutionalised peer group of PhD candidates functioning as 'friend', the best specialist on the topic of the PhD study (or a group of them) playing the role of expert guide, a mentor performing the task of coach (with psychologists or even lawyers being available for difficult situations), a research manager as quality controller, and a professional editor assisting in writing and communication skills. There are cases in which PhD candidates sharing the same supervisor form informal groups to evaluate and guide their relationship with the supervisor, and sometimes these groups agree to avoid certain styles, or to 'teach' the supervisor to do a better job, or to try and change his or her style. In some departments there is an atmosphere of informality, with staff, PhD candidates, and students often meeting each other in canteens, coffee shops or even bars, and with regular meetings being organised at the homes of the leading professors. Most departments have a regularised arrangement for scientific and departmental meetings, in which PhD candidates (or all staff) present their work in progress ('brown bag' lunch meetings,

five-o'clock get-togethers, Friday afternoon 'legs on table' meetings and the like). Other departments do not provide for such a structure, and sometimes staff and PhD candidates hardly ever meet. Naturally, the office situation of the department matters as well. If all PhD candidates and all research staff work together in the same building and share the same secretariat and coffee machine informal contacts will be more regular than if spaces are far apart.

Departments form part of larger bureaucratic institutions. In the Netherlands a major change took place in academia when the individualised and rather chaotic PhD situation in many departments was streamlined under the umbrella of 'research schools' (see elsewhere in this book). Increasing bureaucracy means more emphasis on 'assessments', and 'peer reviews' of performances and results. If PhD projects have a restricted time frame (for example due to funding arrangements or labour laws), this may be treated more as a 'guideline' instead of having any real consequences. However, when departments are 'forced' (or force themselves) to become more strict, relationships which started off as rather personal, and process-oriented, may gradually become more 'tense', and ever more 'bureaucratic', or 'product-oriented'. Particularly when departments are only able to secure new PhD funds if 'old projects' are ready (and theses successfully defended), or when research departments are no longer allowed to give any support/facilities to PhD candidates who have not completed their thesis in time, relationships may really change.

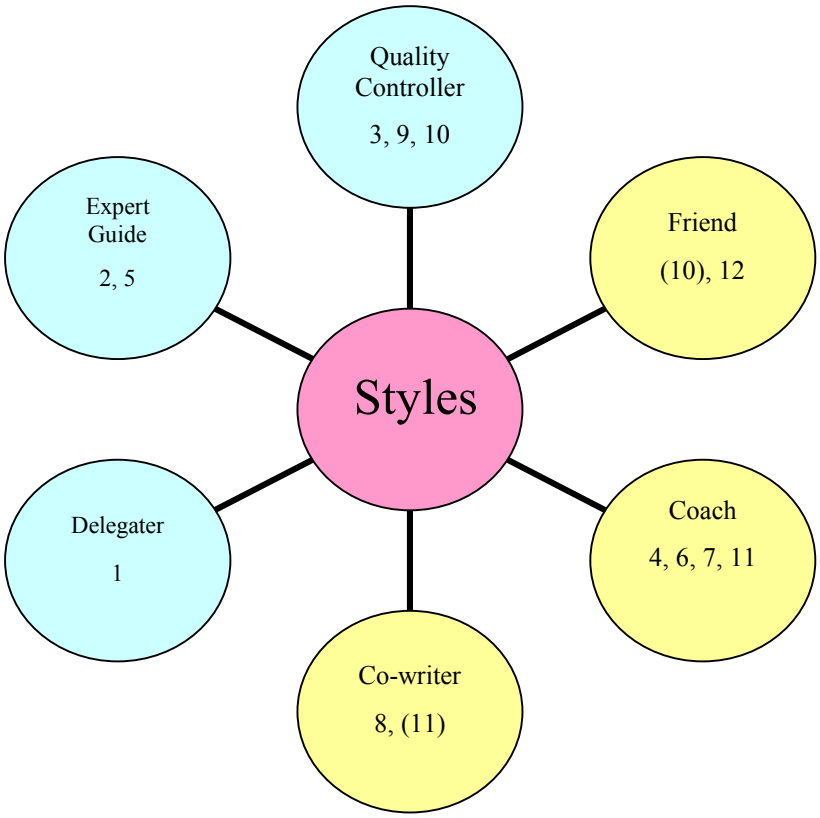
The dynamics of supervision styles

Although each relationship between a supervisor and a PhD candidate is different, and styles of supervision often change in the course of supervision, it is possible to detect a certain 'logic' in these changes during the the PhD trajectory. If there is no prior relationship between PhD candidate and supervisor the initiation of a new project (1) often starts in a business-like fashion, with no task orientation yet from the side of the supervisor. Usually, the formal link is established in a selection procedure, in which supervisors can or cannot be involved. When the PhD project has been agreed upon, the next step is a research design (2). During this stage, supervision is typically business-like, and directed at the process. It shifts to a business-like product-oriented relationship when the research proposal has to be presented (3). In some cases this can even take the shape of a formal exam, or a stage that has to be passed formally. After accepting the research proposal PhD candidates start their actual research by collecting data, often including some kind of 'field work' (4). The relationship with the supervisor(s) shifts back to process support, and if supervisor(s) visit the fieldwork area a more personal style usually develops (if things don't go wrong in the field). After the

fieldwork phase the style of supervision often shifts back to a more business-like approach, directing the PhD candidate to the appropriate data analysis (5). During the write-up phase (6) and the final ('wrap up') fieldwork (7) the relationship becomes more personal again, gradually shifting from a process approach, to product supervision, and – in some cases – to intensive editing and detailed lay-out suggestions (8). Towards accepting the PhD manuscript (9) the relationship has to become more formal again, culminating in the official defence ceremony (10). Activities after the formal defence (11, for example joint publications) often allow for a more personal style, and the relationship usually swings back from the product to a joint process of getting journal articles accepted, or of making policy briefs, local-level popular summaries, or jointly organised scientific or policy-oriented conferences and meetings. Gradually the task has come to an end and, if the process went well, a good personal relationship remains, and joint pride in the accomplishments (12). The supervisory task can take the form of career advice.

In addition, it is important to note that these styles of supervision cannot be discussed in isolation from the stages of the research process and the 'cultural' context in which supervision is taking place. It is also important to take into account that the styles of supervision may not follow a single style throughout the supervision process but may vacillate from a business-like approach to a personal approach or from a product-oriented approach to a process-oriented approach and *vice versa*. The following diagram attempts to show how the variables may relate to each other during the various stages of the supervision process.

FIGURE 4.1 STYLES OF SUPERVISION DURING THE VARIOUS STAGES OF THE RESEARCH PROCESS



KEY: 1: Initiation, 2: Research design, 3: Research proposal, 4: Fieldwork, 5: Data analysis, 6: Write up, 7: Final fieldwork, 8: Editing, 9: Acceptance, 10: Defence, 11: Follow up, 12: Separation.

Personality, capability, and requirements; the importance of training

Each supervisor is likely to have a 'natural profile', a way of 'naturally' supervising PhD candidates, and a way of 'naturally' adapting to the different personalities of their various PhD candidates, to the different requirements during the various phases of a PhD project, and to contextual circumstances, like the culture of a department. Many PhD supervisors have the capability to adjust their 'natural profile' to new situations; others lack the flexibility to do so. In certain situations the requirements of effective and/or acceptable supervision do not seamlessly match with the supervisor's capabilities, and training can help to change and improve to more acceptable, required levels of performance. Even supervisors who more easily adapt to required styles can benefit a lot from a confrontation with the required styles, helping them to make their own styles more explicit, and more transparent. More explicit attention for styles of supervision can help supervisors to become more effective and more efficient, and to overcome the feelings of overload experienced by many of them, also in relation to PhD supervision. An important aspect is combining different competences into

research groups, with two or more supervisors with different styles being involved in PhD supervision, and with different workloads per phase. Embedding PhD candidates in larger research environments (in a department, a research school, a thematic research group, an internet community) can also facilitate matters greatly by providing more effectiveness and efficiency, as well as more academic and personal joy in doing this 'big thing'.

4.4 Voices of supervisors

During the first supervisor's workshop organised by SANPAD, in 2004, supervisors discussed the styles of supervision participants remembered from the period when they were doing their own PhD. Of the 28 participants who participated in this exercise, eighteen participants had experienced mainly one style of supervision, ten had experienced a combination of styles, dependent on the phase of the PhD project, adding up to 22 partial experiences. Participants came from all over the world, with degrees from the United States, Great Britain, Denmark, Germany, the Netherlands, and South Africa. All styles were mentioned, but some more frequently than others. It becomes clear from Table 2 that businesslike styles and more personal styles appeared almost equally frequently. A substantial number of current professors had experienced a rather distant PhD supervision themselves, with hardly any active task-oriented involvement from the side of their promoter. In cases with a clear task relationship, more people had been confronted with a product orientation than with a process orientation, although many said they regretted this and would have liked to have a more substantial process-oriented supervision.

TABLE 4.2 SUPERVISOR'S EXPERIENCES OF THEIR OWN PHD-SUPERVISOR RELATIONSHIP: SANPAD WORKSHOP DURBAN 2004 (N=28)

Relationship	Task			
	No	Yes process	Yes product	Total
Businesslike	*delegater*	*expert guide*	*quality controller*	
	4 1B, 2BM (7)	4 2B, 1M (7)	1 1B, 3F (5)	9 4B 2BM 1M 3F (19)
Personal	*Friend*	*Coach*	*Co-writer*	
	4 1B, 2M, 1F (8)	2 2M (8)	3 6F (9)	9 1B 4M 7F (21)
Total	8 + 7 partial	6 + 5 partial	4 + 10 partial	18 + 22 partial

B= Beginning M= Middle F= Final Stage

During the same workshop in 2004 all participants also discussed their past and current supervisory 'duties'. Thirteen participants reported about their past experiences with successful PhD supervision. Together they reported about 169 cases PhD supervision styles.

TABLE 4.3: SUPERVISOR'S OWN SUPERVISION STYLES OF PAST PHD PROJECTS (N = 13) SUPERVISION STYLES USED BY SUPERVISORS DURING PREVIOUS PHD PROJECTS?

Relationship	Task			
	No	Yes process	Yes product	Total
Businesslike	*delegater*	*expert guide*	*quality controller*	
	21	36	32	89
Personal	*Friend*	*Coach*	*Co-writer*	
	24	24	32	80
Total	45	60	64	

All styles were mentioned, but only the delegation style and the expert guide style were used as singular styles (in nine cases by three Supervisors). The large majority of

supervisors used multiple styles in the relationship with each of their PhD candidates. There was a slight preference for businesslike styles and there was a slight inclination towards product orientation. The style that was most often used was 'businesslike, process oriented' (*expert guide*), with delegation being the style least in use (merely when mature candidates asked for formal supervision and indicated they 'could do it alone'). The most experienced PhD supervisor present in fact used a combination of all styles for all his PhD candidates. One participant reported a special case in which he acted as a peer supervisor for eight colleagues who were all doing their PhD together as a group (in Denmark) without real involvement of a Senior Supervisor. Almost all styles were used in this group.

In five cases of PhD supervision participants reported a failure, either because candidates 'disappeared' (some to competing institutions, referred to as 'stealing'), or because they were told they would not succeed. All supervisors who were responsible for these failures made use of multiple styles, showing a preference for the roles of *expert guide* and *friend/supporter*. The least preferred style in these few cases was the one of *delegater*. However, the number of failures was far too small to come to strong conclusions here. When discussing failed PhD projects during this 2004 workshop, the question was raised whether South Africa should not have formalized escape routes in case PhD candidates were considered too weak for PhD level studies after some time. In some parts of the world the title of 'MPhil' can then be obtained (although this degrades 'genuine' MPhils, because they are sometimes regarded as equivalent to a 'failed PhD'). One South African case was reported in which a PhD candidate who had encountered a physical disability problem was given an additional Masters degree in the area of specialization.

Most participants of the 2004 workshop were involved in ongoing postgraduate supervision. Seventeen participants reported about ongoing PhD supervision. Most of the supervisory styles were combinations, with the exception of about half of the *expert guide* style cases.

TABLE 4.4: STYLES OF SUPERVISION IN ONGOING PHD SUPERVISIONS, 2004 SANPAD SUPERVISORS' WORKSHOP

Businesslike	*delegater*	*expert guide*	*quality controller*	Total
	13	33	16	62
Personal	*friend*	*coach*	*co-writer*	
	22	11	20	53
Total	35	44	36	115

Here the preferred style was *expert guide* followed by the roles of *co-writer* and *supporter/friend*. Few supervisors used a coaching style. A discussion took place about the content of PhD Supervision. Payment to institutions upon graduation may create tensions between institutions, when good PhD candidates are 'stolen' or 'tempted' to go for 'better' places. There is some legal protection when PhD candidates are registered, but candidates can change their topic slightly and then register elsewhere. Students with good Bachelors levels obtained at what in South Africa used to be called 'Historically Disadvantaged Institutions' (HDI) may decide to continue Post-Graduate Education at 'Historically Advantaged Institutions' (like the massive move to Pretoria University currently), or even abroad (although that does not happen regularly). However, some HDIs have succeeded in creating thriving facilities with a good research output, so the picture is not a one-dimensional one. Many young scientists also fear the costs involved in migrating to 'HAIs'.

Supervision involves the creating of an atmosphere of scientific support. In some South African universities intensive methodology workshops are being organised in which there is a combination of interdisciplinary coaching, and peer reviews among PhD candidates themselves. There is some inter-university support developing at the moment (for example at the University of Johannesburg and at the University of the Western Cape), and Vice-Chancellors are now supporting collaboration. The current mergers between universities and former 'Technikons' may also support a break-away from parochial atmospheres. However, all this still does not balance the country-wide collaborative arrangements that have been started up in the Netherlands from the early 1990s onwards (see chapter two).

During the 2004 supervisor's workshop in Durban, participants discussed their worst and best cases of supervision and lessons to be learned. Some of the findings were:

- There have been cases of candidates who submitted their thesis without their supervisor's involvement. This should never happen and there should be clear rules in a department about submission of postgraduate (including PhD/DPhil) theses.
- Plagiarism is becoming a serious problem that supervisors should not close their eyes on. It was suggested to use *google* for checking internet plagiarism, or hire professional services for detection. Be sure that there are clear rules about steps to be taken after detection of plagiarism. There are web-based services available to check plagiarism, e.g., www.plagiarism.org.
- There were quite some instances of dishonesty about personal circumstances. It was stressed that the role of mentors is a crucial one (see chapter 3 of this workbook), because they are familiar with the personal circumstances of candidates and can assist when there are problems of a personal nature.
- Supervisors experience so-called combative PhD candidates, who never follow advice or refuse to make the required adjustments. It was suggested that it is useful for a supervisor to create a file per PhD candidate, containing all correspondence, including copies of emails.
- In the South African context, the 'stealing' of candidates seems to become normal practice: candidates going to another institution to graduate there and severing all ties with their former department, that has made all the initial 'investments'. It was suggested that some inter-university arrangements are needed to avoid the worst cases (and to negotiate a means of financial compensation).
- Recurrently, a PhD candidate is nicely recommended to another supervisor or a supervisor elsewhere, who then later discovers that this was done to get rid of the person. It was suggested to stimulate an open debate among colleagues in a faculty or discipline about post-graduate candidates, and to share responsibility for difficult cases.
- Many current South African supervisors complain about major English language problems among their post-graduate students. There is need for continuous language training and editing assistance for PhD students who are not native speakers of English.
- Some supervisors complained bitterly about the increasing dependence of candidates, who continuously need advice, even on the choice of their topic, and on all methods, questionnaire details, etc. Doing a PhD degree means becoming an independent researcher, so if the above remains a dominant attitude among PhD candidates, this may be considered as a lack of maturity, and as a reason to terminate the supervision.

- Many PhD candidates, and some supervisors as well, report about the difficulties experienced in role switching. When relationships have become rather personal, some PhD candidates cannot accept that after a 'friendship phase' a phase of quality assessment is needed, and that despite the friendship they will be judged by looking at quality norms.

4.5 Observations from the literature

In their well-known book 'How to get a PhD', subtitled 'a handbook for students and their supervisors', Phillips and Pugh (1994) include a chapter on 'How to manage your supervisor' (pp. 93-112) as well as a chapter entitled 'How to supervise' (pp. 147-170). These chapters contain many useful 'do's' and 'don'ts', and the authors indeed provide 'a handbook and survival manual for PhD students'. The book offers much useful advice but it has been written as a general orientation and without much differentiation with respect to styles and approaches to supervision.

The core messages are that supervisors expect their doctoral students to be independent and to present them with written work that is not just a first draft (hence this is more a product than a process style of PhD management). Supervisors are said to expect regular meetings with their PhD candidates, and honesty about progress reporting (and if expectations cannot be fulfilled to make them an issue in meetings). If asked for advice, supervisors expect that their advice will be followed (but then it should be very clear what the advice is exactly). But foremost, supervisors expect their PhD candidates to be excited about their work, and they value those who surprise them and who are 'fun to be with'. Phillips and Pugh talk about the need for PhD candidates to be aware of the 'management aspects' of the relationship, and of communication barriers. 'It is too important to be left to chance' (p.111). They add that during the process, PhD candidates tend to know more about the details of a research topic than their supervisors do, which can threaten the relationship. It is important in research supervisory teams to be clear about the roles of the first and second supervisor, of 'daily supervisors' and/or mentors (and to agree on ways of communicating between these different role players), and there should be fixed rules about changing supervisors, if things really do not work out well.

What do PhD candidates expect from their supervisors? Quite a lot, if we read the long list of expectations identified in the book. It is assumed that all PhD candidates expect to be supervised, and for supervisors to read their work well. They want supervisors to be available when needed, and to be 'friendly, open, and supportive'. But supervisors

should also be role models, 'constructively critical', relying on a good knowledge of the research area, and on willingness to share their knowledge. It should be made easy to exchange ideas, preferably in a 'structured weaning programme', giving attention to the psychological elements involved. And finally many PhD candidates also expect their supervisors to help them get a good job after completion. In an 'action summary', Phillips and Pugh again mention the importance of communication: be aware of expectations and evaluate those regularly. For both PhD candidate and supervisor the relationship should be geared into a process of learning, both intellectually and emotionally. There is a special word of warning in case a PhD candidate is also part of a larger project or programme for which the supervisor is responsible. PhD supervision is a separate task from project management, and there may be conflicts of interest. However, the most important 'action' for each supervisor is to be a good researcher him- or herself, and to show that to the PhD candidates. Joint publications and joint presentations at scientific conferences are important ways of doing this, and often to mutual benefit.

Johann Mouton (2001) has produced a 'How to succeed' book for the South African PhD market. It includes a brief section about 'You and your supervisor' (pp. 16-26). He differentiates four roles for supervisors: adviser (an element of what we have called the *coach*), guide (similar to our *expert guide*), quality control (we have labelled this *quality controller* as well), and emotional and psychological support (he adds the word 'pastoral' between brackets; we regard this as part of the role of *coach*, but a *friend* can also play such roles). A PhD being an 'apprenticeship degree' means that supervision is crucial, and success often depends on the relationship between PhD and supervisor. Mouton strongly emphasises the need for a research contract, in which both PhD candidate and supervisor(s), (and their department) agree on all important matters. In the Netherlands most research schools and institutes nowadays use training and supervision plans, which are regularly (e.g. annually) updated, to enable an institutionalised moment in which both PhD candidate and supervisor have to agree on the work progress, and on the styles of relationship. According to Mouton the first thing a supervisor can expect from a PhD candidate is that s/he adheres to the research contract and is aware of the requirements and rules therein. The first meeting between supervisor and PhD candidate is a crucial one, and Mouton adds a rather long list of things to discuss, and arrange in this first meeting. He also includes five general rules for a healthy and successful relationship: (1) dignity, respect and courtesy, (2) no harassment, (3) accessibility, (4) privacy, and (5) honesty. Indeed, if one or more of these are absent, relationships often fail, or worse, may remain a continuous source of irritation and annoyance.

Although specifically written for the South African academic market, Mouton does not talk much about one of the most problematic aspects of doing research (and PhD research as well) in a context like the South African one. Many PhD candidates, particularly those in the social sciences and in health sciences, want their research work to be 'Research for Development', and many of their research subjects expect this as well. Lots of current PhD candidates have themselves experienced the harsh conditions of poverty, inequality, lack of access to basic facilities, and human rights abuses, during apartheid, but some also today. Many of them have gone through very difficult primary and secondary school periods, with South African schools being in the forefront of the struggle for a democratic South Africa. There are numerous written accounts of what pupils have experienced during those years. One recent analysis of 'the struggle over education in the Northern Transvaal' can be regarded as a joint product of South African and Dutch collaboration, namely the first book in the SAVUSA-NiZA Student Publication Series (Mathabatha 2005). Many current PhD candidates have played a role as activists, and often this has been a strong motivation for them to do a PhD level study, which should also benefit the people who are being studied. The emphasis on action research, development-oriented research, and activist research may clash with more 'ivory tower' attitudes among some (certainly not all) South African supervisors. On the other hand, some supervisors do expect all their PhD candidates to be motivated by developmental urgency, while some PhD candidates might prefer a more abstract or theoretical form of inquiry.

Everywhere in the world academics are confronted with major changes in the knowledge society, in which non-traditional agencies (that is, other than universities) become leaders in scientific discoveries and science-based practices, sometimes with very little connection to the academic community. Indeed, transnational corporations, companies with knowledge-intensive activities, organisations in civil society, and public-private partners have become pioneering agencies in knowledge development. For many PhD candidates their engagement with these 'new centres of knowledge' will be different from that of their supervisors, and that also includes major differences in communication styles, and 'information etiquette', with much more emphasis on electronic resources, and fast, fluid ways of information exchange. Methodology textbooks are now also written by actors from those new centres of innovation (e.g. 'Research for Development', produced by Laws *et al.* who work for Save the Children, an international development and human rights NGO, 2003). In addition handbooks are being written to improve researchers' impact on policy (e.g. Start and Howland 2004).

It is important to include the knowledge and developments coming from these sectors in deliberations between PhD candidates and their supervisors.

Finally it is interesting to see how South African scholars deal with studying the experiences of PhD supervision. In a volume of 'Paradigms, Journal for Research and Debate into Teaching and Learning in Higher Education' (published by Cape Peninsula University of Technology, CPUT), Barbara Lehman and a team of South African scholars conduct an analysis of recent practices. One of the most illuminating contributions comes from two recent graduates of CPUT. They differentiate eight possible supervisory roles (most of those fitting under the 'business-like process oriented' type of our own typology; see before) and use a five-point scale to evaluate their supervisors' performances in each of these potential roles. This approach can be used as an evaluation tool by all groups of post-graduate students, and they can take whatever combination of the roles which we have differentiated before (see 4.4).

4.6 Conclusions

It is important for both chief supervisors, daily supervisors and/or mentors and PhD candidates to reflect on the desired and actual styles of supervision once in a while, and on how these fit the personalities of the supervisor/mentor, and of the candidate, but also on how they reflect the type of research, the stage in the research, and the departmental, university/research school and even the social context in which PhD projects take place ('social' also meaning economic, and cultural). It would be good to do more empirical tests about styles of supervision, using examples such as those of Khan and Lakay (2005: 45). Adapted from our typology, this empirical test uses the following questions, and can work with different scales, of which we select the Likert scale of importance here.[3]

The basic question is: 'How important a contributor did/do you find each of the following supervisory roles in assisting you towards completing your thesis?'

- Delegation;
- Friendship;
- Expert guidance (if wanted with further detail: director, innovator, co-ordinator, broker or monitor);
- Coaching;
- Quality control;

[3] The Likert scale: 1 = not at all important, 2 = not very important, 3 = moderately important, 4 = very important, 5 = extremely important/crucial.

- Co-writing (or: editing).

The test can be done after a project has ended (with or without a thesis product, an *ex post* approach) and it can be done during or even before a project starts (as an *ex ante* discovery of desired relationships), and with more or less sophistication.

Using the same approach, more specific questions are: 'How important were (or would you like to be) the supervision styles in the various stages of the PhD process', differentiating between: 1= Initiation, 2= Research design, 3= Research proposal, 4= Fieldwork, 5= Data analysis, 6= Write up, 7= Final fieldwork, 8= Editing, 9= Acceptance, 10= Defence, 11= Follow up, 12= Separation, or any other stages that are relevant in the particular PhD project.

For *ex post* evaluations PhD candidates can also be asked to add a judgmental question: 'How good or successful was each of your supervisors in playing the various roles (in the various stages of the PhD process)?', again using a five-point scale: 1= very bad/unsuccessful, 2= not successful, 3= moderately successful, 4= good/successful, 5= excellent.

These kinds of exercises could inform and refine improvements towards effective PhD supervision in the future in the Netherlands, South Africa and beyond.

5

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Khan, G. and Lakay, D. (2005) Role of postgraduate supervisors: Reflections by recent graduates, *Paradigms, Journal for research and debate into teaching and learning in higher education* (Cape Peninsula University of Technology, South Africa), 12 (July): 43-9.

Koen, C. (2005) *Challenges facing the education, training and employment of South Africa's scientific labour force, Paper Two*, Pretoria: Human Sciences Research Council.

Laws, S., Harper, C. and Marcus, R. (2003) *Research for development, a practical guide*, London: Sage, for Save the Children.

Mathabatha, N.J.S. (2005) *The struggle over education in the Northern Transvaal. The case of Catholic mission schools, 1948 to 1994*, Amsterdam: Rozenberg Publishers (SAVUSA-NiZA Student Publication Series).

Mouton, J. (2001) *How to succeed in your Masters and Doctoral studies. A South African guide and resource book*, Pretoria: Van Schaik Publishers.

Murray, M. (1991) *Beyond the myths and magic of mentoring: How to facilitate and effective mentoring program*, San Francisco: Jossey-Bass.
Phillips, E.M. and Pugh, D.S. (1994) *How to get a PhD, a handbook for students and their supervisors*, Buckingham (UK) and Bristol (USA): Open University Press [second edition, orig.: 1987].
Phillips-Jones, L. (1982) *Mentors and proteges - how to establish, strengthen and get the most from a mentor/protege relationship*, New York: Arbor House.
Quinn, R.E., Faerman, S.R., Thompson, M.P. and Grath, M.R. (1990) *Becoming a Master Manager – A competency framework*, New York: Wiley and Sons Inc.
Start, D. and Howland, I. (2004) *Tools for policy impact: A handbook for researchers*, London: Overseas Development Institute, Research and Policy in Development Programmes.
Tuck, R. (1993) *The nature of mentoring*, Birmingham: SEDA Publications, The New Academic, pp. 25-6.
Vilkinas, T. (2002) The PhD process: The supervisor as manager, *Education and Training*, 44(3): 129-37.

5.2 A selection of useful books on research methods

Action research

Boog B., Coenen, H. and Keune, L. (Eds) (1996) *Theory and practice of action research*, Tilburg: Tilburg University Press.
Moser, H. (1975) *Methoden der Aktionsforschung*, Munchen: Kosel Verlag.
Reason, P. and Bradburry, H. (Eds) (2001) *Handbook of action research: participative inquiry and practice*, London: Sage.

Case study

Hamel J., Dufour, S. and Fortin, D. (2004) *Case study methods*, Newbury Park: Sage.
Yin, R.K. (Ed.) (2004) *The case study anthology*, Thousand Oaks: Sage.

Design

Bechhofer, F. and Paterson, L. (2000) *Principles of research design in the social sciences*, London: Routledge.
Creswell, J.W. (2003) *Research design: Qualitative, quantitative, and mixed method approaches*,Thousand Oaks: Sage.
King G., Keohane, R.O and Verba, S. (1994) *Designing social inquiry: Scientific inference in qualitative research*, Princeton N.J.: Princeton University Press.

Marshall C. and G.B. Rossman (1999) *Designing qualitative research.* Thousand Oaks, Sage.
Maxwell, J.A. (2005) *Qualitative research design: An interactive approach*, second edition, Thousand Oaks: Sage.

Also see: http://www.socialresearchmethods.net/simul/simul.htm for computer simulations for research design.

Discourse analysis

Dijk, T.A. van (Ed.) (1997) *Discourse as social interaction. Discourse studies: A multidiciplinary introduction*, volume 2, London: Sage.
Fairclough, N. (2003) *Analysing discourse: Textual analysis for social research*, London: Routledge.
Jörgensen M.W. & L. Phillips (2002) *Discourse analysis as theory and method*, Thousand Oaks: Sage Publications
Titscher S., Meyer, M., Wodak, R. and Vetter, E. (2000) *Methods of text and discourse analysis*, London: Sage.

Ethnography

Brettell C.B. (ed.) (1993) *When they read what we write: the politics of ethnography*, Westport, Conn.: Bergin & Garvey.
Denzin N. (1997) *Interpretive ethnography: ethnographic practices for the 21st century*, Thousand Oaks: Sage Publications.
Fetterman, D.M. (1998) *Ethnography*. Thousand Oaks: Sage.
Hammersley, M. (1992) *What's wrong with ethnography?* London: Routledge.
Handwerker, W. P. (2001) *Quick ethnography*, Walnut Creek: AltaMira Press.
LeCompte, M.D. and Schensul, J.J. (1999) *Designing and conducting ethnographic research*, Walnut Creek: AltaMira Press.
O'Reilly K. (2005) *Ethnographic methods*, London: Routledge.
Pink, S. (2001) *Doing visual ethnography*, London: Sage.

Evaluation

Mark, M., Henry, G. and Julius, G. (2002) *Evaluation*, San Francisco: Jossey-Bass.
Patton, M.Q. (1998) *How to use qualitative methods in evaluation*, Newbury Park: Sage.
Pawson, R. and Tilley, N. (1997) *Realistic evaluation*, London: Sage
Ravallion, M. (2001) The mystery of the vanishing benefits, an introduction to impact evaluation, *World Bank Economic Review*, 15(1): 15-40.

Also see: http://www.dprn.nl, and http://gsociology.icaap.org/methods/approaches.html.

Feminist methods

Naples, N.A. (2003) *Feminism and method: Ethnography, discourse analysis, and activist research*, New York: Routledge.
Reinharz, A. (1992) *Feminist methods in social research*, New York: Oxford University Press.

General

Babbie, E. (2006) *The practice of social research*, Stanford (Ct): Thomson Learning.
Babbie, E. and Mouton, J. (2001) *The practice of social research*, Oxford: Oxford University Press.
Bentz, V.M. and Shapiro, J.J. (1998) *Mindful inquiry in social research*, Thousand Oaks: Sage.
Gomm, R. (2004) *Social research methodology: A critical introduction*, Basingstoke: Macmillan.
Johns, M.D, Chen, S.-L.S and Hall, G.J. (Eds) (2004) *Online social research: Methods, issues, and ethics*, New York: Peter Lang.
Long, N. (2001) *Development sociology: Actor perspectives*, London: Routledge.
May, T. (2001) *Social research: Issues, methods and process*, Maidenhead: Open University Press.
Mouton, J. (2001) *How to succeed in your Masters and Doctoral studies: A South African guide and resource book*, Pretoria: Van Schaik.
Ragin, C. (1994) *Constructing social research*, London: Pine Forge.
Sayer, A. (1992) *Method in social science: A realist approach*, London: Routledge.
Scott, J. (1991) *Social network analysis. A handbook*, London: Sage.

Also see: http://www.socialresearchmethods.net/, as well as http://www.library.miami.edu/netguides/psymeth.html, an internet resource list of methods in the social sciences, and http://gsociology.icaap.org/methods/.

Grounded theory

Glaser, B.G. and Strauss, A.L. (1999) *The discovery of grounded theory: Strategies for qualitative research*, New York: Aldine de Gruyter.

Health-related studies, epidemiology

Bowling, A. (2002) *Research methods in health: Investigating health andhealth services* (Paperback, 2nd ed.), Buckingham: Open University Press.
Checkoway, H., Pearce, N. and Kriebel, D. (2004) *Research methods in occupational epidemiology* (2nd ed.), Oxford: Oxford University Press.
Holford, Th.R. (2002) *Multivariate methods in epidemiology*, Oxford: Oxford University Press.
Sargent, C.F. and Johnson, Th.M. (Eds) (1996) *Handbook of medical anthropology: Contemporary theory and method, revised edition*, Westport: Greenwood Press
Selvin, S. (2004) *Statistical analysis of epidemiologic data*, Oxford: Oxford University Press.

Interviews

Barbour, S. and Kitzinger, J. (1999) *Developing focus group research: Politics, theory and practice*, London: Sage.
McCracken, G. (1988) *The long interview*, Newbury Park and Oaks: Sage.
Seidman, I. (1998) *Interviewing as qualitative research: A guide for researchers in education and the social sciences*, New York: Teachers College.
Templeton, J.F. (1994) *The focus group*, New York: McGraw Hill.

Literature reviews

Fink, A. (1994) *Conducting research literature reviews*, Thousand Oaks: Sage.

Livelihood analysis

DfID (2001) *Sustainable livelihood guidance sheets*, London: Department for International Development (http://www.livelihoods.org).

Mixed methodology

Tashakkori, A. and Teddlie, C. (1998) *Mixed methodology: Combining qualitative and quantitative approaches*, Thousand Oaks: Sage.
Thomas, R.M. (2003) *Blending qualitative and quantitative research methods in theses and dissertations*, Thousand Oaks: Corwin Press.

Narrative research

Lieblich A., Tuval-Mashiach, R. and Zilber, T. (1998) *Narrative research: Reading, analysis, and interpretation*, Thousand Oaks: Sage.

Qualitative research (data analysis)

Bryman, A. and Burgess, R.G. (Eds) (1994) *Analyzing qualitative data*, London: Routledge.
Dey, I. (1993) *Qualitative data analysis: A user-friendly guide for social scientists*, London: Routledge.
Ezzy, D. (2002) *Qualitative analysis: Practice and innovation*, London: Routledge.
Strauss, A.L. (1987) *Qualitative analysis for social scientists*, Cambridge: Cambridge University Press.
Goffey, A. and Atkinson, P. (1996) *Making sense of qualitative data. Complementary research strategies*, Thousand Oaks: Sage Publications.
Miles, M.B. and Huberman, A.M. (1994) *Qualitative data analysis. An expanded sourcebook*, Thousand Oaks: Sage.

Qualitative research (general)

Alvesson, M. and Sköldberg, K. (2000) *Reflexive methodology. New vistas for qualitative research*, London: Sage.
Berg, B. (1989). *Qualitative research methods for social science*, London: Allyn and Bacon.
Creswell, J.W. (1998) *Qualitative inquiry and research design: Choosing among five traditions*, Thousand Oaks: Sage.
Denzin, N.K. and Lincoln, Y.S. (Eds) (2003) *Collecting and interpreting qualitative materials* (2nd ed.), Thousand Oaks: Sage.
Denzin, N.K. and Lincoln, Y.S. (Eds) (1994) *Handbook of qualitative research*, Thousand Oaks: Sage.
Denzin, N.K. and Lincoln, Y.S. (Eds) (2003) *The landscape of qualitative research* (2nd ed.), Thousand Oaks: Sage.
Gubrium, J.F. and Holstein, J.A. (1997) *The new language of qualitative method*, New York: Oxford University Press.
Henning, E. with W. van Rensburg and B. Smit (2004) *Finding your way in qualitative research*, Pretoria: Van Schaik.
Maykut, P. and Morehouse, R. (1994) *Beginning qualitative research: A philosophical and practical guide*, London: Routledge.
Patton, M.Q. (2002) *Qualitative research and evaluation methods*, London and New Delhi: Sage.
Schram, T.H. (2003) *Conceptualizing qualitative inquiry: Mindwork for fieldwork in education and the social sciences*, Upper Saddle River: Merrill Prentice Hall.
Shank, G.D. (2002) *Qualitative research: A personal skills approach*, Upper Saddle River: Merrill Prentice Hall.

Silverman, D. (2002) *Doing qualitative research: A practical handbook*, London: Sage.

Quantitative research

Bollen, K.A. (1989) *Structural equations with latent variables*, Wiley Series in Probability and Mathematical Statistics, New York: Wiley.
Byrne, B.M. (1998) *Structural equation modelling with LISREL, Prelis and Simplis: Basic concepts, applications and programming*, New Jersey/London: Erlbaum.
Coelli, T.J., Rao, D.S.P. and Battese, G.E. (1998) *An introduction to efficiency and productivity analysis*, Boston/Dordrecht/London: Kluwer Academic Publishers
Hoyle, R.H. (Ed.) (1995) *Structural equation modelling. Concepts, issues and applications*, Thousand Oaks: Sage.
Rao, C.R. (2002) *Linear statistics inference (advanced statistics of linear models)* (2nd ed.), New York: Wiley-Interscience.
Sadoulet, E. and De Janvry, A. (1995) *Quantitative development policy analysis*, Baltimore/London: The Johns Hopkins University Press.
Verbeek, M. (2000) *A guide to modern econometrics*, Chichester: John Wiley & Sons Ltd.
Vogt, W.P. (1999) *Dictionary of statistics and methodology: A nontechnical guide for the social sciences*, London: Sage.
Wooldridge, J.M. (2001) *Econometric analysis of cross section and panel data*, Cambridge MA: MIT Press.

Also see: *Journal of econometrics*, *Econometrica*, *The Review of Economics and Statistics*, and other specialised journals (for a list of journals relevant for the social sciences as a whole see: http://CERES.fss.uu.nl under 'rating').
For selecting statistical methods see: http://www.socialresearchmethods.net/selstat/ssstart.htm.

Supervision

Brown, G. and Atkins, M. (1997) [1988] *Effective teaching in higher education* (2nd ed.), London: Routledge
Mouton, J. (2001) *How to succeed in your Masters and Doctoral studies. A South African guide and resource book*, Pretoria: Van Schaik Publishers.
Phillips, E.M. and Pugh, D.S. (1994) [1987] *How to get a PhD, a handbook for students and their supervisors* (2nd ed.), Buckingham (UK) and Bristol (USA): Open University Press.

Also see: http://www.cdtl.nus.edu.sg/link/nov2000/cover.htm, and

http://ctl.stanford.edu/Tomprof/postings/145.html (tomorrow's professor mailing list)

Survey research

Aldridge, A. and Levine, K. (2001) *Surveying the social world: Principles and practice in survey research*, Buckingham (UK): Open University Press.
Buckingham, A. and Saunders, P. (2004) *The survey methods workbook*, Cambridge: Polity Press.
Fowler, J.F. Jnr. (1995) *Improving survey questions: Design and evaluation*, Thousand Oaks: Sage.

Technology (GIS and remote sensing)

Bonham-Carter, G.F. (1994) *Geographic information systems for geoscientists: Modeling with* GIS, Oxford: Pergamon.
By, R.A. de (Ed.) (2004) *Principles of geographic information systems - An introductory textbook* (3rd ed.), Enschede: ITC.
Kerle, N., Janssen, L.L.F. and Huurneman, G.C. (Eds) (2004) *Principles of remote sensing - An introductory textbook* (3rd ed.), Enschede: ITC .
Lillesand, T.M., Kiefer, R.W. and Chipman, J.W. (2003) *Remote sensing and image interpretation* (5th ed.), London: Wiley.
Liverman, D., Moran, E.F., Rindfuss, R.R. and Stern, P.E. (Eds) (1998) *People and pixels: Linking remote sensing and social sciences*, Washington: National Academy Press.

Thematic

Kalb, D., Pansters, W. and Siebers, H. (Eds) (2004) *Globalisation and development: Themes and concepts in current research*, Dordrecht: Kluwer.
Truman, C., Mertens, D.M. and Humphries, B. (2000) *Research and inequality*, London: Routledge.
Twine, F.W. and Warren, J.W. (Eds) (2000) *Racing research, researching race*, New York: New York University Press.

And of course many more….

Writing academic texts

Ely, M., Vinz, R., Downing, M. and Anzul, M. (2001) *On writing qualitative research: Living by words*, London: Routledge Falmer.
Henning, E., Gravett, S. and Van Rensburg, W. (2005) *Finding your way in academic writing* (2nd ed.), Pretoria: Van Schaik.

Markman, R., Markman, P.T. and Waddell, M.L. (2001) *10 Steps in writing the research paper*, New York: Barrons.

Murray, R. (2002) *How to write a thesis*, Maidenhead: Open University Press.

Swales, J.M. and Feak, C.B. (2000) *English in today's research world: A writing guide*, Ann Arbor: University of Michigan Press.

5.3 Annotated bibliography

SANPAD has thought it necessary to provide a small library of current books on social research methodology for the use of RCI students at their workshops. The principle informing the selection of these works was that they should be representative of the various aspects of the field, should be as recent as possible, and should be relatively inexpensive. All of them are helpful in one way or another, but we take it as our brief to draw attention to a representative selection of these. We present our selection, below, in something approximating to a narrative order, beginning with works introducing qualitative methodology generally, and going on to mixed methods, grounded theory, feminism, narrative research, interviews, discourse analysis, data analysis, technological matters, design, and writing. The SANPAD RCI library appreciates donations of methodology books to add those to its stock. They are intensively used by PhD candidates in the SANPAD RCI Programme. Please send these donations to: SANPAD South Africa, PO Box 701208, Overport, 4067, adding RCI library. The following selection was made by Alan Brimer, during the last few years RCI co-ordinator at SANPAD's office in Durban. We maintain his personal style of writing and hope you will have the same joy of reading it as the editors of this book had.

Henning *et al*. 2004, *Finding your way in qualitative research*, was written for the use of novice researchers but makes a stimulating text for more seasoned researchers as well. Its purpose is to enable researchers 'to think consistently about the methodologies that underpin their practices', so that they can answer the question 'why this method and not that?' Henning characterizes qualitative research, as against quantitative research, as producing thickly textured description (Gilbert Ryle's term), and supports the notion of the qualitative researcher as a *bricoleur*, one who uses a wide range of methods and techniques in various combinations in order adequately to represent what Husserl calls 'lived experience'.

One of Henning's two guest writers, van Rensburg, who is responsible for the second chapter, describes in clear, easy terms the three established classes of theories: the positivist/postpositivist paradigm, in which the researcher and the researched are assumed to be separate and exclusive entities; the interpretivist/constructivist paradigm, with its discursive approach, in which the researcher and the researched are thought to relate in a dialogic manner; and the critical paradigm, in which the researcher and the researched have a mutual ownership of the research. He argues that such a theoretical

or conceptual framework positions research in a discipline or subject, anchors the research in the relevant literature, and is the pair of spectacles through which one sees the world in the capacity of a researcher. Henning builds on this to relate 'design type' to the 'genre' of a research study ('genre' including ontological, epistemological and ideological concerns) and argues for a close connection between design types and methods. In doing so she looks briefly at the generic nature of case studies, ethnographic studies, ethno-methodological studies, discourse and narrative analysis, grounded theory studies, evaluation studies, and action research. In writing about qualitative research interviews she stresses the need to get beyond the 'post-positivistically plain,' to penetrate beyond surfaces to the complex, rule-bound discourse which conveys how people make their lives together and build communities. Later, having spent time on such topics as observation and conversation analysis (writing always in the nuanced voice of an engaged thinker and teacher) she writes about how one 'works the data' to produce the richly textured interpretive discourse that reflects/approximates/represents… the lived experience that is the proper focus of the competent qualitative researcher. And this difficulty with finding a verb in which one has complete faith (or a noun, for that matter: validity / reliability / generalisability / trustworthiness, credibility / dependability…) motivates her to write a brief confessional recording in fact her inability to justify the practices of qualitative research in absolute terms, but also persuading the reader that the practices are nevertheless of significant value. 'If you are not interested in prediction, then generalisability lies in the eye of the beholder and, like beauty, is applied because it fits with what the beholder knows. And that takes us back to communication and neighbourliness'. This book is warmly human at the same time as being very sharp.

Denzin and Lincoln 2003, *The landscape of qualitative research*, is unusual in this collection not just because it costs much more and is about twice as long as most others of the books we have, but also because it is really only a third part of a larger compendium entitled the *Handbook of qualitative research*. The *Handbook* is published as a single hard-back tome, or as three paperbacks, the other two sections being entitled *Strategies of inquiry* and *Collecting and interpreting qualitative materials*.

The second edition of the paperback *The landscape of qualitative research* was virtually all new in 2003. It consists of three parts – 'Locating the field'; 'Paradigms and perspectives in transition'; and 'The future of qualitative research' - each introduced by the editors and consisting of sets of authoritative articles written by various eminent methodologists - and the three parts are bound together by a general

introduction also written by the editors, as is the last chapter in the book. The recurrent refrain in the work as a whole is that epistemologies are time-bound and have describable purposes, and that it is the flux of time that needs to be represented in a work such as this, rather than any particular moment; hence the organising of the qualitative research methodology field into seven historical moments, the seventh of which is the future! The stated purpose of the *Landscape* is 'solidifying, interpreting, and organising the field in spite of the essential differences that characterize it'. The field itself is described as being characterized by 'tensions, contradictions, and hesitations'. Reading through the chapters one gets a sense of the 'interpretive community' of qualitative research methodologists and practitioners, and of what they are doing, which in many instances would not previously have been called science. As the editors put it, '[The narrative turn] has been taken, and that is all there is to say about it'. This is a rhetorical statement. They actually go on writing about the 'narrative turn' for another 600 pages. 'Sociologists and anthropologists continue to explore new ways of composing ethnography, and many write fiction, drama, performance texts, and ethnographic poetry. Social science journals hold fiction contests. Civic journalism shapes call for a civic, or public, ethnography' (vii-ix). The editors and their contributors depict current qualitative research practice as being embedded in the desire to change the world – as a radical democratic practice. They, too, celebrate the vision of the researcher as a *bricoleur*, borrowing from many sources, especially the humanities, from which researchers learnt to do 'complex structural and post-structural readings of social texts' (4). A few of the authors of chapters write within positivist or post-positivist traditions, which 'linger like long shadows over the qualitative research project' (14), but the editors seem to commit themselves to critique of positivism from a postmodern perspective. Their volume describes the variety of paradigms currently available to the qualitative researcher, but I believe it would be fair to say that they themselves favour 'the constructivist paradigm [which] assumes a relativist ontology (there are multiple realities), a subjectivist epistemology (knower and respondent cocreate understandings), and a naturalistic (in the natural world) set of methodological procedures' (35).

There is rich fare here, and so much of it that a reader will be able to pick and choose for him/herself and decide what is best. For me, the central article is Lincoln and Guba's 'Paradigmatic controversies, contradictions, and emerging confluences', which is Chapter 6 of the book. It contains one of the most remarkable and off-putting tables imaginable, '*Basic beliefs of alternative inquiry paradigms - updated*', which consists of five columns (Positivism, Postpositivism, Critical Theory *et al*., Contructivism, and Participatory Action Research) and sixteen rows (beginning with Ontology and

Epistemology, and ending with Considerations of Validity and 'Voice') giving the reader eighty slots (5x16) to look at and understand. I can't do that, but I can enjoy some of the moves they make in their writing, such as the statement: '… to argue that it is paradigms that are in contention is probably less useful than to probe where and how paradigms exhibit confluence and where and how they exhibit differences, controversies, and contradictions' (254). One would have thought that the relation between ontologies, epistemologies and methods might be such that different paradigms would make incommensurate truth claims. Perhaps not – or perhaps not always? The authors cautiously suggest that some paradigms may at times be commensurable, especially when they share axiomatic elements.

The stated purpose of the chapter is 'to acquaint readers with the larger currents, arguments, dialogues, and provocative writings and theorizing, the better to see perhaps what we ourselves do not even yet see: where and when confluence is possible, where constructive rapprochement might be negotiated, where voices are beginning to achieve some harmony' (264-5). Their attempts to do this are interesting but inconclusive. Their vision of the 'landscape' is comprehensive and detailed but also sufficiently tempered by reflection for the reader to see the possibilities for the emerging relationships to which they refer. Of course, the 'constructive rapprochement' to which Lincoln and Guba refer, when the voices will begin 'to achieve some harmony', is unlikely ever finally to happen, and they retreat from this position at the end of the chapter: 'Such a resolution appears highly unlikely and would probably even be less than useful' (286) – but the arguments developed in the space between the hypothesis and the conclusion make good reading. They also write trenchantly about the controversies which, in their opinion, typify today's paradigmatic concerns. Should qualitative researchers engage in action designed to change the world, or should they stop with research results and leave action to activists and politicians? Who should initiate research projects, determine the questions to be asked, decide what will constitute the findings, and how they will be used? What are the foundations of truth and knowledge in qualitative research paradigms? What is the nature of validity in qualitative research - if the notion applies at all? Could one think of it as authenticity, as resistance or post-structural transgression, as an ethical relationship? They write about voice, reflexivity, postmodern textual representations, and even about possibilities for the future. And their own (choric?) voice is audible throughout, keeping the reader alert to the dynamics of the relation between thought and feeling: '…we are persuaded that objectivity is a chimera: a mythological creature that never existed, save in the imagination of those who believed that knowing can be separated from the knower'. In doing these things they produce a valuable miniature of the

massive tome of which their chapter is meant to be only a part. This is not to suggest that the rest of the chapters of the *Landscape* can be left unread – but it might be a good idea for the reader to start this massive work by reading the Introduction and then Chapter 6, after which s/he will be in a good position to choose where next to go in the book.

Kalb *et al*. 2004, *Globalisation and development*, is a product of CERES, the Dutch Research School for Resource Studies for Development, with which SANPAD co-operates in offering its learning programme in social research methodology. In a sense it maps - and is a series of extended critical literature reviews on - a number of the salient themes preoccupying social researchers today, including livelihood research, identity formation, governance, trans-nationalism/migration studies, and the relationship between knowledge and development, in the context of a vision of recent, ongoing history. Each of the six chapters is the product of a small team of CERES researchers led by the chief author of that chapter, and each chapter concludes with a useful set of references which amounts to a bibliography of recent academic writing on the subject dealt with in the chapter. This makes the book a convenient tool for researchers who believe that they may need help in situating their work in the context of international scholarship and research in their field. The authors say: 'Rather than a review of the state of the art in the field, [each chapter] is a selection of issues reflecting the authors' fields of expertise and standpoints' (75), but these fields are so broad and the expertise so precise that the book may be taken to reflect willy-nilly the state of the art at the time of writing – 2003.

Each chapter critically reviews the recent scholarship in its field, but it also attempts to produce some sort of synthesis of what is being said by academics and, looking to the future, attempts to develop an overall collegial view of what research needs still to be done and how it should be accomplished. This, then, involves a fair amount of theorizing, which means that the authors assume particular standpoints from time to time. For instance, the authors of the first chapter reflect the relatively radical views of the academy (radical in contrast to the swing to conservatism in the political west) when they wonder whether the emergence of 'a transnational state centered on the global power of the US' is the product of 'the self-interested ideology of a US empire' or of 'a transnational corporate financial class and its handmaidens in government' (34). In the natural sciences theories are valued in relation to the extent of their explanatory power. Here, and in the subsequent chapters, the theorizing takes a mass of current academic literature into account and constructs something approaching an elegant, unified interpretation around them. It may be worth remembering though that

these constructions are still just theories – useful fictions which will be superseded in time. In ten years' time the book may well be of historical interest only, but right now it is entirely pertinent.

Mouton 2000, *How to succeed in your Masters and Doctoral studies*, was used as information in preceding parts of this workbook and therefore needs not be discussed here. Mouton's and Henning's texts are South African products written against South African backgrounds, and should find a home in the libraries of all South African social researchers.

Thomas 2003, *Blending qualitative and quantitative research methods*, is a useful 'how to'-book, which is not in itself a bad thing for a book to be, provided the performatives are delivered in such a way as to leave room for – or better, to stimulate - reflection about the actions to be performed, giving the reader the choice of doing something other than what is stipulated. That is often the case here.

Thomas is aware of sophisticated theory and quotes it often enough (both sides of the spectrum – quantitative and qualitative), but is inclined to by-pass it in his own writing. He sees himself as a pragmatist who is 'convinced that every research method is suited to answering certain types of questions but not appropriate to answering other types. Furthermore, the best answer frequently results from using a combination of qualitative and quantitative methods' (7). The writing seems to be pitched at a level appropriate to the bulk of junior postgraduate students, and is therefore inclined to a clarity which some might call oversimplification: 'Ethnography is a special kind of case study in which the researcher, over a period of time, participates in the activities of the people, organisation, or event being investigated. Ethnography is the chief method used by cultural anthropologists to understand the structure and inner workings of a group they have chosen to study. Here are two typical ways ethnography has been defined…' (35). One's objection to this sort of writing, and to the way in which the book is structured (in short paragraphs with bold key words as headings) is not that the text is inaccurate but that it is insufficiently nuanced, that it leaves too much unsaid, and that it tends sometimes towards closure rather than inviting openness of the mind. Of course we must temper this judgment by acknowledging that the author's purposes lie elsewhere. He wishes primarily to tell his readers how to do mixed methods rather than how to think about them. The book includes what could be described as a brief descriptive catalogue of qualitative methods, but turns ultimately on the analysis of qualitative data through quantitative methods, and presents and discusses the established methods of doing this. (The book contains a great deal of material in addition to this – eg

'applying, testing, and generating theories', 'contributing to research methodology', 'replicating others' research', and 'publishing the results' - but interpreting data must surely be the central issue.) The discussion includes the setting out of the advantages and disadvantages of each procedure, and this is perhaps where it is most useful, in that readers are placed in a position to decide for themselves what they should do in relation to what they want to achieve through their choice of method. One could ask one's students to use this text as a guide through their first major mixed-methods research project, in the hope that the experience will be a launching pad towards more sophisticated research in the future.

In Glaser and Strauss 1999, *The discovery of grounded theory*, the authors seem to consider the qualitative/quantitative debate to be pointless. For them, these are two complementary ways of generating data from which the researcher derives grounded theory. The word 'theory' deserves a moment's attention here. The authors use the term in such a way that theory could exist at any level of abstraction, but they usually mean something in between an intellectual construct accounting for the nature of the world as a whole within a specific disciplinary context (a 'grand theory') and a modest working hypothesis based on data (such as 'most construction workers are men', for instance): an attempt to account for a class of data or a set of behaviours, such as stigma, status congruency, reward systems, or social mobility. The authors say that their work is an attempt 'to close the gap between theory and research' (vii), or to address the 'important enterprise of how the discovery of theory from data – systematically obtained and analyzed in social research – can be furthered' (1). Despite the fact that we are now used to such formulations, the use here of the word 'discovery' may still disturb the reader in so much as it may be thought to imply that the person who 'discovers' whatever there is to be found is neutral in the matter – doesn't in any way contribute to what is 'discovered'. But the authors are frank about adopting this position: 'Such a theory fits empirical situations, and … it works – provides us with relevant predictions, explanations, interpretations and applications' (1).

We may be more comfortable with their justification of their enterprise when they write of their impression that many empirical studies in academic journals have 'tacked-on' general explanations at the end of them, which do not really fit the data supplied in the articles. The author of such an article would do this, they say, 'because he has been trained only to research and verify his facts, not also to research and generate his explanation of them' (4). But their frequent polemical dismissal of what they call 'logico-deductive theorizing' – 'our position is not logical; it is phenomenological' (6) - situates this aspect of their project in a very particular perspective.

Despite this, grounded theory does in fact allow for the presence of the researcher in the research and remains a popular methodology – and this particular book reflects the common-sense state of the art. One begins with comparative analysis: 'As we shall discuss and use them, the elements of theory that are generated by comparative analysis are, first, conceptual categories and their conceptual properties; and second, hypotheses or generalized relations among the categories and their properties'. Theory construction begins with data collection, via any of a number of established practices, such as ethnographic studies for instance, after which one works 'through substantive to grounded formal theory' (35). And the first part of the book sets out the process in detail. The rest of the book has to do with 'the flexible use of data' and 'the implications of grounded theory', and seems to be something of a make-weight, but this doesn't negate the value of the first part of the book, which is certainly worth reading.

The fact that so many 'how to' books are basically empirical in nature, taking for granted what counts as data, may be a reflection of the gap that one sometimes finds between research practice and (advanced) theory in qualitative research, a gap you will not find in the next work to be considered, Nancy Naples 2003, *Feminism and method*, in which the author asserts that 'the specific methods we choose and how we employ those methods are profoundly shaped by our epistemological stance' (3).

Naples sets out her stall as follows:

> Throughout my career as a feminist sociologist, I have sought to address the following questions: How does a researcher negotiate the power imbalance between the researcher and the researched? What responsibilities do researchers have to those they study? How does participatory research influence analytic choices during a research study? How do strategies of self-reflection alter ethnographic practice? Feminist scholars have consistently raised such questions, suggesting that if researchers fail to explore how their personal, professional, and structural positions frame social scientific investigations, researchers inevitably reproduce dominant gender, race, and class biases. I draw on my empirical work and three different methodological approaches – ethnography, narrative and textual analysis, and activist and participatory research – to demonstrate the *materialist feminist* framework I developed to make visible how power operates during the research process and in the production of narrative accounts (3).

The book contains a discussion of the feminist theoretical frameworks that inform her work – socialist feminist theories of the state, feminist standpoint epistemology and racial formation theory, postmodern, postcolonial and third-world feminism, and

materialist feminism – then goes on to the discussion and the display in action of three methodological strategies – ethnography, narrative and textual analysis, and activist and participatory research, and proceeds to a discussion and analysis of the effectiveness of various specific research projects which she has conducted. The most telling of these is contained in Chapter 10, where she explores the limits of participatory research as she experienced them in a project which consisted of dialogue between herself and a fellow survivor of childhood sexual abuse. Here she reflects honestly on the fact that the difference in purpose between herself and her co-researcher (one of them wanting to publish in an academic journal, and the other wanting to make a difference to the lives of the abused) as reflected in the eventual outcome of this implicit conflict (the publication of the journal article) indicates the possibility that for all one's ideals, power relations in participatory research can never be balanced. Given the nature of the project represented in this book, this comes close to a touchingly honest admission of defeat (in this particular instance?).

Lieblich *et al*. 1998, *Narrative research: Reading, analysis, and interpretation*, sets out four paradigms for doing narrative research (by 'narratives' the authors mean life stories elicited by interlocutors, and recorded *verbatim*) and gives examples of such narratives and the ways in which they can be read. They call these models holistic-content reading, holistic-form reading, categorical-content reading, and categorical form reading. Holistic readings deal with a narrative as a whole, and categorical readings deal with parts of a narrative. The 'form' readings look at such issues as the plot or structure of a narrative. The authors' position, articulated (perhaps overstated?) in their first chapter, is a rejection of the postmodern impulse in recent qualitative research in the belief that 'one may still find, in current scholarship, realistic, essentialist, or historical perspectives that examine the story, or any verbal account, as a (better or worse) representation of internal and external validity' (8). But the first twenty-eight pages of the work, which reflect on the theory underpinning their practices, are relatively sophisticated. The authors suggest that 'working with narrative material requires dialogical listening (Bakhtin 1981) to three voices (at least); the voice of the narrator, as represented by the tape or text; the theoretical framework, which provides the concepts and instruments for interpretation; and a reflexive monitoring of the act of reading and interpretation, that is, self-awareness of the decision process of drawing conclusions from the material' (10). This makes sense, as does their thinking of their reflexive interpretive practices as akin to the generation of grounded theory. But the analogy is not an entirely accurate depiction of their method. Glaser and Strauss overtly reject the need constantly to verify one's grounded theory by referring back to the data, believing that to do so would stultify the development of such theory

per se, whereas Lieblich *et al*. want the reader repeatedly to test an interpretation against the narrative material. This book is limited in scope (it ignores many other methodologies of narrative analysis) but should prove useful to the researcher engaging in the interpretation of narratives for the first time.

The long interview (up to six hours long, in two-hour segments perhaps), as described in McCracken 1988, is based on the use of an open-ended questionnaire, as against the unstructured interview that might lead to the production of one of Lieblich *et al*.'s narratives. It is goal-directed, and has social rather than psychological concerns. The use of a questionnaire controls the nature and quantity of the data the researcher has to deal with after the event without constraining their character.

Published in 1988, this book predates most of the others in the SANPAD collection, and the opening theoretical section, which pleads for the general acceptance of qualitative methods, is therefore rather dated. But it goes on to deal usefully with issues such as the 'self/investigator' as instrument, the balance between the need to be there physically and the need to be unobtrusive, and the nature of the relationship between the interviewer and the respondent. One feels the presence of real experience behind the writing, the style of which is accessible, helpful and even entertaining: 'When I proposed long interviews with individuals between the ages of 65 and 75, funding agencies expressed concern that these interviews might prove fatiguing … Almost without exception, respondents proved more durable and energetic than their interviewer. Again and again I was left clinging to consciousness and my tape recorder as the interview was propelled forward by respondent enthusiasm' (27). The author considers the use of a questionnaire to be indispensable in the long interview situation. It ensures that the investigator covers all of the necessary terrain, it schedules the prompts without distracting the investigator from what is being said, and it 'establishes channels for the direction and scope of the discourse'. (24) It 'does not pre-empt the 'open-ended' nature of the qualitative interview' as 'the opportunity for exploratory, unstructured responses remains' (24). He makes a number of practical suggestions as to how one should construct an appropriate questionnaire, including the statement that one should always start with a thorough literature review instead of assuming that one is going where no-one has gone before. Then he places the investigator inside the investigation, suggesting that one review one's own knowledge of 'the systematic properties of the topic, separating the structural from the episodic, and the cultural from the idiosyncratic' (32). Then one frames the questions, in a general and non-directive manner, including 'floating prompts' through the exploitation of features of everyday speech. (One of these which can't be scripted is the 'eyebrow flash' – simply raising

one's eyebrows to persuade respondents to expand on what they have said!) He then writes about the actual interview procedure, in similar detail. ('… use the body postures and facial gestures that signal assent. It is better here to appear slightly dim and too agreeable than to give any sign of a critical or sardonic attitude' (38).) And finally analysis, which he says could take place in five stages of ascending generality, beginning with a treatment of the actual utterances of a respondent as observed data and ending with a synthesis of the categories, relationships and assumptions that inform a set of respondents views of the world in general and the topic in particular (42) in the context of the literature and culture review. The author also shows an unseemly enthusiasm for the possibilities raised by the use of computers in analysis, and finishes by suggesting a set of criteria by which the researcher can judge the quality of the work performed. (For a more recent view of computer-assisted analytical methods, see Denzin and Lincoln 2003, *Collecting and interpreting qualitative materials*: 'These methods presume an objectivist, realist, foundational epistemology, and their use too often takes for granted the interpretive procedures and assumptions that transform field notes into text-based materials' (54).)

This is a short book, easily read and understood, which makes a number of practical suggestions to guide practitioners, but it does this in a non-prescriptive way, and in a sound (if slightly over-simple) theoretical context.

The last two books discussed above inevitably raise the issue of discourse analysis, which is the subject of Fairclough 2003. The purpose of this work is to show how linguistic analysis can address a range of issues of concern to social scientists, although most of the illustrative material here focuses more narrowly on what the author calls 'language in new capitalism', and neo-liberalism more generally. The author describes his 'actual motivation for asking the sorts of questions [he asks] in this book [as] the belief that texts have social, political, cognitive, moral and material consequences and effects, and that it is vital to understand these consequences and effects if we are to raise moral and political questions about contemporary societies, and about the transformations of 'new capitalism' in particular' (14). The book itself is organised around such issues as 'texts as social events', the generic forms texts can take, texts as representations, and texts as constituting the social identities of participants in events of which the texts are a part. The model of textual analysis the author propounds is 'critical discourse analysis,' which could be seen as a derivative from or as related to Halliday's systemic functional linguistics. He attributes the causal effects of texts to their linguistic forms, in context. I think it would be fair to say that the author spends more time, for instance, on drawing inferences from the linguistic intricacies of a text –

such as semantic, grammatical, lexical and phonological relations, than on the external framing of texts. He makes ideological representations out of such data in order to show how they contribute to social relations of power and domination (9). It follows, then, that his epistemology is by and large empirical (he says 'realist' but could have said 'materialist') rather than constructivist.

Fairclough situates meaning-making in an interactive process between individuals (in the case of face-to-face conversation), or between the producers and recipients of written texts, saying that he will 'not give a developed overall account of the process of meaning-making, though [his] approach does assume the need for such an account' (11-12). The theoretical sophistication of the work as a whole makes this withdrawal from completion surprising. He could without compromising his ontology have situated meaning-making in discourse communities (for the production of texts) and interpretive communities (for the reception of texts), following on the work of Stanley Fish, thus positioning 'meaning-making' in the social rather than the individual world. But there are many different models of discourse analysis current in the academy and it would be churlish to object to this omission from a book which couldn't conceivably be all-inclusive.

Ezzy 2002 is entitled *Qualitative analysis: practice and innovation*, and the book must therefore stand or fall in accordance with our opinion of Chapter 4 of the book, entitled 'Coding data and interpreting text: methods of analysis'. In the introduction, the author describes this chapter as suggesting 'the tension between the traditional focus on coding patterns in the data, and the more recent focus on interpreting the meaning of texts through relating them to more general theoretical frameworks and cultural processes' (xvi). Preceding Chapter 4, the first three chapters amount to a survey of the theories informing qualitative research practices, inclusion of which is justified by the author on the grounds that interpretation begins during data collection; and the last two chapters of the book are about CAQDAS and about the act of writing, which is correctly seen as being implicitly interpretive.

The crucial Chapter 4 favours constructivist methods over the more traditional 'scientific' methods, on the grounds that they get closer to lived experience, but the author reflects eventually about all that has been said in order to conclude as follows:
Each of the analytic strategies described in this chapter is a way of summarizing and interpreting 'data'. The aim is not to discover, finally and objectively, what is 'out there'. Rather the aim is to engage with the data as 'other', as a participant in a conversation in which the researcher also participates. This does not mean, however,

that anything goes methodologically. Systematic and rigorous data analysis strategies are both better at hearing the voice of the 'other', and provide a stronger position from which to contribute to the ongoing politically imbued conversation in which we live (109).

This comes after the author has described an array of mutually exclusive interpretive strategies with clarity and conviction. First he describes increasingly sophisticated levels of content analysis and coding practice, including Strauss and Corbin's 'axial coding' and 'selective coding'. (I ask myself what happens to what is left over after everything else has been coded. Are these snippets not likely to be the really rich bits of data? One's coding is surely a form of theory-making – 'Coding finishes when the researcher is satisfied that the theory is saturated' (93) - and the bits that don't fit could illuminate the short-comings of one's theory.) All of the coding practices Ezzy describes acknowledge that the researcher is situated inside the research rather than outside it. Next he writes about narrative analysis in the context of his sound knowledge of the relevant literary theorists as well as the relevant qualitative research methodologists, focusing though on only two analytic methodologies, one of which stresses what participants say, the other of which stresses how they say it. Finally he discusses some of the analytical methods of cultural studies and semiotics, which contextualize data as much as they analyse them, including those that interest themselves in 'what is not present in the data as well as in the manifest content,' (103) and which present their results 'not as scientifically validated truth but as historically located, subjective and relative' (102). This part of the book is especially substantial and incisive.

Liverman *et al*. 1998, *People and pixels*, is the only book in the SANPAD RCI library which deals with the use of natural science technology in social research. This is no more than a gesture in what I hope is the right direction. A number of the students using the SANPAD RCI library are natural scientists who wish to use their disciplines in the service of people, and books of this sort might help them to grasp the possibilities.

This particular work demonstrates how satellite imaging of the world (in various levels of detail – involving the 'pixels' of the title) can be used to support the work of social scientists from a variety of disciplines, particularly those interested in people/environment interactions. Of course, the images of the earth's surface taken from space are empirical evidence, and suggest the use of quantitative methodologies to situate them in a social context. The book itself is an outcome of a conference

organised by the (US) National Research Council in 1998, and looks rather like an edited version of the proceedings, beginning with three chapters dealing with the general usefulness of remote sensing in the social sciences, and going on to six chapters which might be described as case studies. Given the date of publication and the rapidity with which technology advances, we may justly assume that there must have been many important developments since then. It is good, then, that the book contains an appendix which lists and describes at least a hundred web sites at which one can freely access the latest satellite images of various parts of the world. I've played with some of these, and they work! The book itself might be dated, but it is a route to the very latest satellite technology.

Given the rapidity with which global warming is taking place, remote sensing is likely to become an ever more important instrument for the concerned social scientist.

Maxwell 2005, *Qualitative research design*, is yet another 'how to' book. (It even contains useful design exercises for students to perform, and illustrations of the author's techniques as put into practice by some of his students.) It is one of the 49 volumes in the comprehensive SAGE Applied Social Research Methods series. As the method of design propounded here is inductive, the book begins by discussing aspects of qualitative methods as the components of design, in order to arrive at a final chapter about the conversion of a design into a proposal. The earlier topics include the goals of the proposed research project, the conceptual framework, the development of research questions, the choice of methodology (including data analysis), and the vexed concept of validity. It is the consideration of such matters and the relations among them that lead to coherence. The author calls his model of design 'interactive,' meaning that it is not linear in progression, but involves shifting back and forth between the different interconnected elements of the project as they develop. He suggests, for instance, that the researcher should continually redefine her research questions as the project develops, to ensure that they can be answered by the methods of the study, and that they address the initial goals.

In the preface to the second edition the author says that he has discovered, since writing the first edition, that he is a 'realist' – in this case we could think 'eclectic, perhaps' - a fact which does not mean that he believes his reality to be unmediated. In fact, he suggests that one of the moves to be made in qualitative research is for a researcher to write a 'researcher identity memo' (39) or to 'mine' his/her own experience in composing a 'concept map' at an early stage in the process of design. This would situate the researcher inside the research, but in such a way as to make the researcher's

subjectivity (or 'bias') overt. Another way of doing this would be for the researcher to get his/her thoughts (arising from personal experience) down on paper as loose notes, and to join them together as relationships appear, looking for gaps and filling them in, developing what could be called a theory applying to the phenomena to be studied not from the phenomena themselves but from the researcher's ideas about them. Maxwell eschews postmodernism but also avoids positivism and what he calls 'instrumentalism'. For him there is a world out there and a world inside as well, and we have access to both of them. 'Realists … do not assume that research questions and conclusions about feelings, beliefs, intentions, prior behaviour, effects, and so on, need to be reduced to, or reframed as questions and conclusions about the actual data that one collects. Instead, they treat these unobserved phenomena as real, and their data as evidence about these, to be used critically to develop and test ideas about the existence and nature of the phenomena' (72-3). To take the 'instrumentalist' approach (by framing questions only about the data one collects) is to risk trivializing a study.

The author devotes a separate chapter to the topic of validity in research, and prefers that a separate section of each research proposal should deal with the subject. He includes a check-list of things one can do in order to enhance the 'validity' of a study. This part of the book is not entirely convincing, but it doesn't nullify the value of the idea that design should be 'interactive'.

Henning *et al*. 2005, *Finding your way in academic writing*, is designed to teach senior students how to write dissertations and academic articles worthy of publication. 'We did not compose the book as an academic artifact on scholarly writing, but as a personal route we have traveled with our [education] students and that we document for them and for other students and teachers in higher education who wish to travel similar routes' (xii). This should not be taken as an indication that the work is theoretically naïve. The authors subscribe to the notion that writing is a process of thinking that uses written language – 'not an externalisation of mental activity, but a direct performance of such activity' (xv). They also use the notion of discourse communities with established discourse conventions, vocabularies, and rules of writing and presentation, to situate modes of writing (especially academic writing) within their proper frames of reference. 'Because knowledge is socially constructed, a research "reporter" engages in conversation with a community of readers, who will decide what they think of the text, based on what they already know and on what you provide for them. The writer is usually fully aware of who this community is, what they expect the writer to do for them, what they understand about the writer's concerns, how they will respond to the writer's solutions/answers and in what forum they are likely to encounter the writer's

report' (xvi-xvii). The lone researcher writing up his/her findings in his/her study is therefore engaging in a communal act. There are many other (ephemeral) figures with their hands on the pen, or their fingers on the keyboard.

In this instance, as the book is grounded in actual classroom experience in three faculties of education, the community in question is a community of educationalists. This could put a slight strain on those (student) readers who wish, for instance, to do the practical exercises set frequently in the text, but the difficulty is by no means insurmountable.

The book provides an overview of the structuring of a research text, suggesting three phases of writing – a pre-drafting phase, an initial drafting phase, and an editing phase, all three of which are related to the nature of argumentation in a research paper. It explores ways of examining a research topic, gives guidance in the matter of literature searches, relates ways of reading to ways of writing, positing that there are different types of knowledge to be integrated in the act of writing (conceptual understanding, knowledge of how to perform your understanding in the act of writing, conditional knowledge – 'knowing when and where to do something' (48) - and reflective or meta-cognitive knowledge, and then gets down to more simply practical matters such as sentence and paragraph construction. It also introduces a framework for writing up fieldwork in a chapter which is the main innovation in this (second) edition.

The book is a valuable workbook for postgraduates rather than a text to be read from front to back. It is good, then, that it is set out with such clarity. For instance, each chapter begins with a statement of the four or five objectives the authors wish to achieve at that particular stage of the work, and it is written in a direct style suitable for multilingual students in a South African context.

Appendices

Appendix A: SANPAD (also see: http://www.sanpad.org.za)

The South Africa-Netherlands Research Programme on Alternatives in Development (SANPAD) is a unique programme, which has been funded by the Netherlands Ministry of Foreign Affairs since 1997. Its uniqueness lies in the fact that SANPAD projects are headed by South African researchers but are implemented in partnership with Dutch researchers. SANPAD is now in its second five year phase of activity and its primary objectives are as follows:

- To stimulate and promote quality research;
- To produce research outputs intended and useful for development purposes;
- To promote co-operation between South African and Dutch researchers and between institutions within South Africa;
- To develop research capacity and a culture conducive to research aimed particularly at researchers from historically disadvantaged communities.

SANPAD implements its objectives through three major funding initiatives:

1. *Funding high quality research projects* that focus on the research under the following six themes:

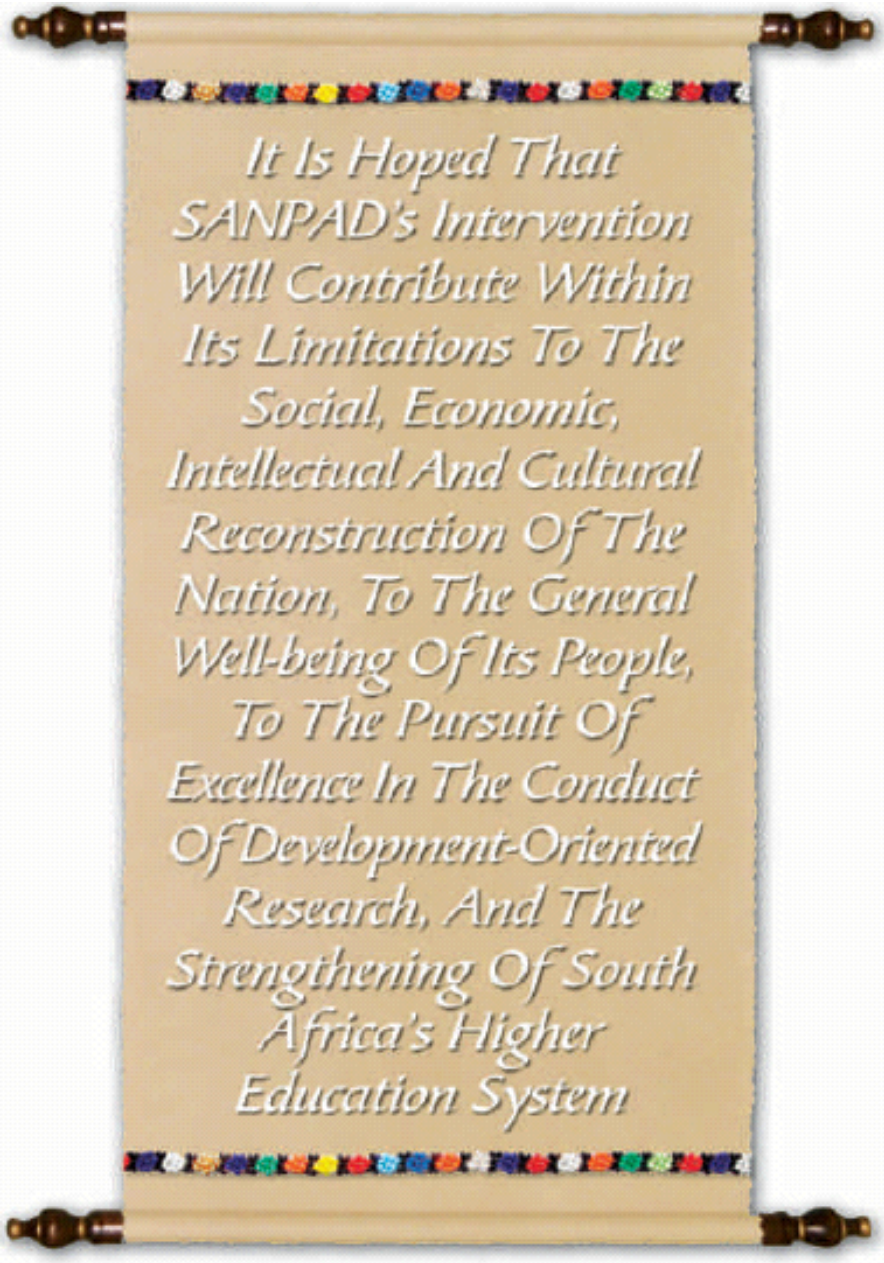
- New approaches to Economic Development;
- Social Development and Quality of life;
- Natural Resources and their Governance;
- Democracy, Government and Civil Society;
- Culture, Identity and Society;
- Poverty Reduction.

2. *Funding the Research Capacity building Initiative (RCI)*

Annually SANPAD offers a seven-week residential learning programme in research methodology in the social sciences to a cohort of selected South African researchers in the pre-doctoral study stage.

3. *Funding Research Support Activities*

The research support activities are intended to provide support to SANPAD funded research projects, to the RCI and more generally to institutions where research capacity needs to be enhanced. This workbook is an example of this initiative. In the period 2003-2005 SANPAD has funded 47 projects, 78 RCI candidates and 380 participants in the Research support activities in the phase two funding cycle. The outputs emanating from SANPAD funded projects at the time of going to press was at least 96.



SANPAD will finance Research Projects that have a social development and policy related content that may be multi-disciplinary and cross-thematic and with a special focus on poverty reduction. Details of the sub-themes are explained in the Programme document.

To realise the above objectives, SANPAD focuses on subsidising and fostering Research Projects.

Through an annual call for proposals, SANPAD conducts a process of reviewing and selecting the research proposals. Thereafter, the programme funds the approved research projects, monitors the projects, enables co-operation amongst South African Higher Education Institutions and South African and Dutch researchers within the respective projects, and reports on finances and progress.

SANPAD may provide discretionary assistance for (re)formulating research project proposals. The decision suggesting reformulation is made by the Joint Committee of SANPAD. Reformulation usually entails the assistance of senior researchers in South Africa and the Netherlands and other relevant bodies that may add value to the reformulation of the proposal for resubmission for funding. The reformulation process generally takes the form of workshops.

SANPAD may also provide discretionary assistance for pre-proposal workshops. Funding for Pre-proposal workshops are generally granted to first time project leaders from the designated groups, and to researchers who require further exploration of ideas that they believe may evolve into a full proposal. The application for a pre-proposal workshop must be accompanied by a letter of motivation identifying the reasons why a full proposal cannot be submitted, a proposed list of participants in line with the SANPAD policy on collaboration, a proposed budget for such a workshop in keeping with SANPAD policy on funding such workshops.

Appendix B: CERES

CERES (Research School for Resource Studies for Development) is the coordinating body for development-oriented research and research dealing with global social transformation processes in the Netherlands since its inception in 1992. CERES has been accredited by the Royal Academy of Sciences in 1994 and has been re-accredited in 1999 and 2004.

Six academic institutions participate in CERES:

- The Utrecht University (the administrative hub of the school);
- The University of Amsterdam;
- The Wageningen University and Research Centre;
- The Radboud University Nijmegen;
- The Institute of Social Studies at The Hague;
- The Vrije Universiteit (Amsterdam).

There are many associated institutes as well, and there are special ties with some other research schools, with the Institute for Development Policy (IOB) in Antwerp in Belgium, and with the European Asociation of Development Institutes. CERES also hosts the Development Policy Review Network (DPRN).

CERES coordinates the work of the senior staff members, as well as the training of PhD candidates. CERES represents the great majority of researchers in the Netherlands engaged in development-oriented and global social transformation studies.

The mission of CERES focuses on resource problematics, in which many international development problems find their origin. Resources are not only natural but also human, including capital and knowledge. Its core research question focuses on the processes and principles underlying perception, access, control and management of those resources and their implications for development. Its problem orientation indicates a multidisciplinary and comparative approach, using a variety of paradigms and a multilevel methodology, ranging from case studies to global surveys.

The coordination of CERES research takes place in eight ‘Working programmes’ each with its own projects, that is, the formulation of research plans, joint application for funding, and the networking of individual researchers.

CERES PhD training offers a four-year program leading to a PhD dissertation. The first year offers a joint format for all participants with shared coursework aiming at a general introduction to the CERES scientific approach, and optional courses geared to the demands of the projects and candidates. A field research of at least one year is followed by a combination of individual tuition and class. CERES aims at training its graduates for both academic and professional jobs, with a clear priority for applied science in development organisations. CERES fosters close ties with the Ministry of Foreign Affairs of the Netherlands.

More information can be found on http://CERES.fss.uu.nl, and on http://www.drpn.nl.

Appendix C: Participants in the two SANPAD and one CERES supervisory workshops

Supervisors' workshop, participants 2004- South Africa

No.	*Title*	*First name*	*Surname*	*Institution*	*Email*
1	Mr	Harry	Ballard	Peninsula Tech	ballardh@pentech.ac.za
2	Dr	Mathume	Bopape	CASME	bopapem,@nu.ac.za
3	Prof	Gina	Buijs	Univ. of Zululand	gbuijse@pan.uzulu.ac.za
4	Dr	Sam	Chikwembani	UNITRA	chikwesQyahoo.co.uk
5	Prof	Ton	Dietz (presenter)	Amsterdam	a.j.dietz@fss.uu.nl
6	Prof	Olalekan Siyanbula	Fatoki	Univ. of Venda	fatoki@univen.ac.za
7	Prof	Maryann	Green	UKZN	green@ukzn.ac.za
8	Prof	Rachel Vuyiswa	Gumbi	Univ. of Zululand	kadlam@pan.uzulu.ac.za
9	Dr	Liesel	Hibbert	UWC	lhibbert@uwc.ac.za
10	Ms	Naziema	Jappie (presenter)	DIT	
11	Prof	Champaklal	Jinabhai	UKZN	Jinabhai@ukzn.ac.za
12	Dr	Binyavan	Kamanzi	University of Transkei	kamanzi@getafix.utr.ac.za
13	Prof	Digby Sqhelo	Koyana	University of Transkei	Tel. 047-5022256
14	Prof	Jerry	Kuye	University of Pretoria	kuyej@up.ac.za
15	Mr	Jacobus	Landman	Mangosuthu Tech	landman@julian.mantec.ac.za
16	Dr	Mashudu	Maselesele	University of Venda	mmasele@univen.ac.za
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Appendix D: The South African and Dutch systems of higher education

The Higher Education landscape in South Africa 2003-2006

The South African higher education landscape is rapidly changing, mainly due to the many mergers between universities and so-called Technikons. This overview is given to inform the readers about the current state of affairs.

New Institutions in 2005	*Institutions in 2003/4 that merged to create HEI's in 2005*
1 Cape Peninsula University of Technology (CPUT)	Cape Technikon ,Peninsula Technikon
2 Central University of Technology	Technikon Free State, Vista (Welkom Campus)
3 Durban Institute of Technology (DIT)	ML Sultan Technikon, Natal Technikon
4 Mangosuthu Technikon	Mangosutho Technikon
5 Nelson Mandela Metropole University (NMMU)	PE Technikon and University of PE, Vista (PE campus)
6 North West University (NWU)	Potchefstroom University for CHE, University of the North West, Vista Campus of Sebokeng
7 Rhodes University (RU)	Rhodes University
8 Tswane University of Technology (TUT)	Pretoria Technikon, Technikon Northern Gauteng, Technikon North-West
9 University of Cape Town (UCT)	University of Cape Town
10 University of Fort Hare (UFH)	University of Fort Hare (East London campus of Rhodes University)
11 University of the Free State	University of the Free State, Vista (Qwa-Qwa campus of the University of the North and Vista University Bloemfontein campus)
12 University of Johannesburg	Rand Afrikaans University, Technikon Witwatersrand and Vista University East Rand and Soweto campuses
13 University of Kwazulu-Natal (UKZN)	University of Durban Westville , University of Natal
14 University of Limpopo (ULIM)	Medical University of South Africa University of the North
15 University of Pretoria (UP)	University of Pretoria incorporates Vista Mamelodi campus
16 University of South Africa (UNISA)	University of South Africa , Technikon South Africa and Vista University distance Campus-VUDEC

17 University of Stellenbosch (SU)	University of Stellenbosch (US)
18 University of the Western Cape (UWC)	University of the Western Cape (UWC) incorporates Stellenbosch School for Dentistry
19 University of the Witwatersrand (WITS)	University of the Witwatersrand (WITS)
20 University of Venda for Science and Technology (UNIVEN)	University of Venda (UNIVEN)
21 University of Zululand (UNIZUL)	University of Zululand (UNIZUL)
22 Vaal University of Technology	Vaal Triangle Technikon
23 Walter Sisulu University for Technology (WSU)	University of Transkei, Border Technikon, Eastern Cape Technikon
24 Higher Education South Africa (HESA)	SAUVCA (South African University Vice Chancellors Association) and CTP (Committee for Technikon Principals)

The Higher Education landscape in the Netherlands

The Netherlands (still) has a dual system of higher education, with an academic and a professional layer (comparable to the former Technikons in South Africa). Almost all are public institutions. In addition there are five institutions for international education, which are in a process of integration into the Dutch university system. The professional institutes are governed by the *HBO-Raad*, the public universities by the VSNU. There is a legal possibility now for mergers, and some have been initiated (e.g. in Amsterdam, and Wageningen-Larenstein). There is also a University Foundation For International Cooperation (NUFFIC, in the Hague, see http://www.nuffic.nl) and the Royal Academy of Arts and Sciences (KNAW, in Amsterdam, see http://www.knaw.nl). Research funding (partly) comes from the Netherlands Organization for Scientific Research (NWO) with its office in The Hague (see http://www.nwo.nl). There is a specific fund for research concerning international development issues (WOTRO, part of NWO). Leiden hosts the African Studies Centre (http://www.ascleiden.nl), and Amsterdam the Royal Tropical Institute (http://www.kit.nl).

Universities

Government-funded universities (see http://www.vsnu.nl, and http;//www.studyin.nl):

- Universiteit Leiden/Leiden University;
- Universiteit Utrecht/Utrecht University;
- Rijks Universiteit Groningen/University of Groningen;
- Erasmus Universiteit Rotterdam/Erasmus University Rotterdam;
- Universiteit Maastricht/Maastricht University (also connected to the United Nations University);
- Universiteit van Amsterdam/University of Amsterdam (nowadays part of: Universiteit en Hogeschool van Amsterdam);
- Vrije Universiteit Amsterdam;
- Radboud Universiteit Nijmegen/Radboud University Nijmegen;
- Universiteit van Tilburg/Tilburg University;
- Technische Universiteit Delft/Delft University of Technology;
- Technische Universiteit Eindhoven/Eindhoven University of Technology;
- Universiteit Twente/University of Twente;
- Wageningen University and Research Centre;
- Open Universiteit Nederland/Open University of the Netherlands.

Government-approved universities (see http://www.studyin.nl):

- Katholieke Theologische Universiteit te Utrecht/Catholic University for Theology, Utrecht;
- Nyenrode Business University, Breukelen;
- Theologische Faculteit Tilburg/Theological Faculty Tilburg;
- Theologische Universiteit van de Christelijke Gereformeerde Kerken/Theological University of the Christian Reformed Churches;
- Theologische Universiteit van de Gereformeerde Kerken/Theological University of the Reformed Churches;
- Theologische Universiteit van de Gereformeerde Kerken (vrijg.)/Theological University of the Reformed Churches (liberated);
- Transnational University Limburg;
- University for Humanistics, Utrecht;
- University Nimbas – Graduate School of Management.

International education (see http://www.studyin.nl)

- Institute of Housing and Urban Development Studies, Rotterdam;

- Institute of Social Studies, The Hague (awards its own PhD degree, part of CERES);
- International Institute for Geo-Information Science and Earth Observation (ITC), Enschede ;
- Maastricht School of Management, Maastricht;
- UNESCO-IHE Institute for Water Education, Delft.

'Hogescholen' (see http://www.hbo-raad.nl)

- Aeres Groep Christelijke Hogeschool Dronten, Dronten;
- Amsterdamse Hogeschool voor de Kunsten, Amsterdam;
- ArtEZ Hogeschool voor de Kunsten, Arnhem;
- Avans Hogeschool, Breda;
- Christelijke Hogeschool Ede, Ede (Gelderland);
- Aeres Groep Christelijke Hogeschool, Dronten;
- Christelijke Hogeschool Windesheim, Zwolle;
- Codarts Hogeschool voor de Kunsten, Rotterdam;
- Design Academy Eindhoven, Eindhoven;
- Fontys Hogescholen, Eindhoven;
- Gereformeerde Hogeschool, Zwolle;
- Gerrit Rietveld Academie, Amsterdam;
- Haagse Hogeschool / TH Rijswijk, Den Haag;
- Hanzehogeschool Groningen , Groningen;
- HAS Den Bosch, Den Bosch;
- Hogeschool Domstad, Utrecht;
- Hogeschool Drenthe , Emmen;
- Hogeschool Driestar educatief, Gouda;
- Hogeschool Edith Stein, Hengelo;
- Hogeschool Helicon, Zeist;
- Hogeschool INHOLLAND, Den Haag;
- Hogeschool IPABO Amsterdam Alkmaar, Amsterdam;
- Hogeschool Larenstein, VelpHogeschool Leiden, Leiden;
- Hogeschool Rotterdam, Rotterdam;
- Hogeschool Utrecht, Utrecht;
- Hogeschool van Amsterdam , Amsterdam;
- Hogeschool van Arnhem en Nijmegen, Arnhem;
- Hogeschool van Beeldende Kunsten Muziek en Dans, Den Haag;
- Hogeschool voor de Kunsten Utrecht, Utrecht;
- Hogeschool Zeeland, Vlissingen;

- Hogeschool Zuyd, Heerlen;
- Hotelschool Den Haag, Den Haag;
- Interactum p/a Hogeschool Domstad, Utrecht;
- Iselinge Educatieve Faculteit, Doetinchem;
- Katholieke PABO Zwolle, Zwolle;
- NHTV Internationale Hogeschool Breda, Breda;
- Noordelijke Hogeschool Leeuwarden, Leeuwarden;
- PC Hogeschool Marnix Academie, Utrecht;
- Pedagogische Hogeschool De Kempel, Helmond;
- Saxion Hogescholen, Enschede;
- Stichting Van Hall LarensteinVan Hall Instituut, Larenstein;
- Stoas Hogeschool, Dronten;
- Van Hall Instituut, Leeuwarden.

Other important organisations:

- NUFFIC, Netherlands University Foundation For International Cooperation, The Hague (http://www.nuffic.nl);
- NWO, Netherlands Organization for Scientific Research, The Hague (http://www.nwo.nl);
- WOTRO (part of NWO for development-oriented research), The Hague (http://www.nwo.nl/wotro);
- KNAW, Royal Netherlands Academy for Arts and Sciences, Amsterdam (http://www.knaw.nl);
- CERES, Research School for Resource studies for Development, Utrecht (http://ceres.fss.uu.nl).

Appendix E: Valuation approaches in CERES and EADI

For external evaluation and internal monitoring purposes it is important to have some measure of success of research work. However, this evaluation needs to be carried out in ways which are regarded as fair and broad enough to cover all relevant types of research output. To avoid one-sided reliance on scientific journals only, and to avoid dependence on the system used by the USA-based Thomson-ISI web of knowledge CERES has developed a system of valuation that is now widely used in the Dutch social sciences, and that has also been adopted by the European Association of Development Research and Training Institutes (EADI, see http://www.eadi.org). It is a much broader system than the one often used in South Africa (the SAPSE system). For more information and explanation see http://CERES.fss.uu.nl under 'rating list' for the lists of A,B,C,D and E-rated journals and publishers, and for a more elaborate explanation of the valuation system. In early 2007 the system will be evaluated as part of the Mid-Term Review process of re-accreditation of CERES as a research school, and as part of on-going discussions in EADI.

Summary of the system

- All journals in the ISI lists, with a relatively high impact score per CERES domain, and the CERES selection of top-level academic publishers;
- All other ISI-listed journals, and the CERES selection of sub-top academic publishers;
- All other refereed journals and publishers with an academic referee system;
- All academic non-refereed journals and academic publishers without a referee system;
- All non-academic journals and publishers.

These lists are annually reviewed by the CERES Publication Accreditation Committee (in June) and endorsed by the CERES Board, and by EADI. All suggestions for additions and corrections can be sent to l.vantoledo@fss.uu.nl at the CERES office.

These scores are used in a valuation framework in which research input is judged against different types of research output.

CERES valuation framework

1 CERES output credit stands for an expected output of 100 research work hours.

CERES differentiates between productivity valuation:
(A+B+C+D+E+P+R+O) / research fte input
and academic quality valuation:
(A+B+C+P) / research fte input.

Normally productivity and quality assessments are done by looking at the output of the last five years. S= single author; M= multiple authors.

Research fte input: for senior members: all budgeted research time in full time equivalents (e.g. 0.1 = 160 hours); for postdocs: half of their registered research time. Researchers with part-time positions have lower fte research input. Input registration is done annually, output registration as well.

Overview of the CERES system of valuation

	A		B		C		D		E	
	S	M	S	M	S	M	S	M	S	M
Journal art	5	4	4	3	3	2	2	1	1	0.7
Book edit	7	5	6	4	4	2	2	1	1.5	1
Book >300	18	13	15	11	12	9	8	6	4	3
100-300	15	10	12	8	9	6	6	4	3	2
<100	12	7	9	5	6	3	4	2	2	1
Chapter	12	7	9	5	6	3	4	2	2	1
External Report	>100 S	M	25-100 S	M	<25 S	M				
R	3	2	2	1	0.5	0.3				
Supervised PhD thesis*	alone	2	3 major	3 Other	4					
P	4	2	2	1	1					
O	other CERES credits, see rating list document.									

* upon completion and successful defence.