GUIDELINES FOR POSTGRADUATE SUPERVISION

UNIVERSITY OF PRETORIA



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1. INTRODUCTION

Postgraduate study is central to the vision of the University of Pretoria to be a leading research-intensive university in Africa, recognised internationally for its quality, relevance and impact, and also for developing people, creating knowledge and making a difference locally and globally.

The Strategic Plan of the University, UP 2025, highlights the importance of fostering a culture of inquiry at all levels of the University curriculum and it could be argued that nowhere is this more important, in a research-intensive university, than in postgraduate education. At this level individual attention can be given to students as 'research apprentices' learning to apply in a very direct sense the problem-based approaches required for higher degree research.

The University's Academic Plan further highlights the role of supervisors in postgraduate education and the capacity that must be developed within the university system in order fully to harness the potential of postgraduate students in contributing to the academic enterprise as junior staff and potential future researchers and academics.¹ The basic premise is that postgraduate supervision is an important cornerstone of an academic career, providing a vital link between the research and teaching activities of the University of Pretoria, both at undergraduate and postgraduate levels.

The aim of this document is to provide broad guidelines in clarifying the role and responsibilities of supervisors at the University, with reference to institutional policies where appropriate. The guidelines are structured to—

- provide an overview of postgraduate education at UP,
- sketch elements in the postgraduate lifecycle,
- frame the pivotal importance of the student-supervisor relationship,
- elaborate on the role and responsibilities of supervisors and, in turn, of postgraduates.

The guidelines are particularly intended to provide information and guidance for academic staff members who are new to the role of postgraduate supervision, and should be read in conjunction with the following documents:

- The University's long-term Strategic Plan, UP 2025
- The accompanying Academic Plan
- The Five-Year Implementation Plan, 2012–2016 and the research-related appendices, i.e.—
 - The Research Strategy for the University of Pretoria; and
 - Academic Framework for Postgraduate Study.

2. THE POSTGRADUATE EDUCATION PROGRAMME AT UP

¹ See the Strategic Plan, Academic Plan and Five-year Implementation Plan for further contextual detail.

The University of Pretoria offers doctoral degrees and a wide range of professional, coursework and research master's degrees. While many of the educational principles and University policies apply to all postgraduate programmes, this document focuses mainly on research-based higher degrees.

In a rapidly globalising world that is characterised by the internationalisation of higher education, the aim of the postgraduate programmes is to provide high level education at an appropriate intellectual level and with the necessary relevance for a range of contexts and stakeholders, including those who will later employ postgraduates (e.g. academia, government industry, commerce, the professions, and civil society). Further, research higher degrees constitute the essential training ground for future generations of academics and researchers, and therefore, the curriculum for all postgraduate degrees should include sufficient research-based activity to provide a foundation for future research practice.

Below follow brief descriptions of the requirements for doctoral and master's degrees, with reference to relevant institutional policies or information.

2.1 Definition and requirements of higher degrees

2.1.1 THE DOCTORAL DEGREE

A Doctor of Philosophy (PhD) degree is a research-based qualification, awarded for an independent study conducted in the sciences or humanities. The award requires the creation and interpretation of new knowledge, making a significant and original contribution at the forefront of the academic discipline or area of professional practice, manifest ability to conceptualise, interrogate and answer high level research questions, and understanding of relevant research techniques. The work must be of a quality to satisfy peer review and merit publication. The degree may be earned through basic discipline-based or multidisciplinary study or applied research. A graduate should then be competent to supervise and evaluate the research of others in the area of specialisation.

 \rightarrow The general regulations applicable to doctoral studies appear in G.45 to G.56 (University of Pretoria General Regulations and Rules 2012).

The University of Pretoria awards a doctoral degree by virtue of a thesis with or without additional written and/or oral examinations.

 \rightarrow General regulations G.57 to G.60 apply in respect of doctoral theses.

A doctoral student is furthermore required to submit a draft article for publication based on his/her doctoral research.

 \rightarrow General regulation G.61 applies.

In faculties where the faculty regulations allow it, a doctoral degree can be conferred on a candidate who enjoys international recognition by virtue of outstanding and extensive research (doctoral degree by virtue of publications).

 \rightarrow The applicable general regulations appear in G.56.

² Note that the *Green Paper for Post-School Education and Training* (DHET, January 2012) makes provision for a Professional Doctorate which may be introduced in due course.

³ Revised Higher Education Qualifications Framework, Government Gazette, Dec 2011.

2.1.2 THE MASTER'S DEGREE

The University offers a wide range of research and taught master's degrees, as listed in the University Yearbook and on the UP website.⁴

Master's programmes may incorporate a combination of coursework and research, or may be research-only programmes. The University requires a master's by coursework (also referred to as a taught master's or unofficially as a professional master's degree) to have a research component of at least 50%. In practice this translates into a requirement for the student to prepare a mini-dissertation that accounts for 50% of the student's final mark.

 \rightarrow Preparation and examination of mini-dissertations are governed by faculty regulations.

The award of a research master's degree requires that a student demonstrates that s/he has achieved mastery in a specific academic or professional field. The master's graduate will have demonstrated that s/he has acquired a body of advanced-level knowledge, has completed a piece of independent research, and has applied skills of critical analysis and evaluation to the results of the research.

→ The general regulations applicable to master's degrees at the University of Pretoria appear in G.30 to G. 44 (University of Pretoria General Regulations and Rules 2012).

Students awarded a master's degree should have acquired the intellectual skills required to pursue further studies or research in a largely self-directed, independent manner. Thus, master's graduates should have achieved a level of knowledge and understanding (or artistic and creative competence where appropriate), that enables them to integrate knowledge, handle complexity, formulate judgements and communicate their conclusions to an expert and non-expert audience.⁵

Importantly, a master's degree *does not* require that the student completes original research which makes a novel contribution to the body of knowledge in the field.

Thus, the research master's degree should be viewed as training for research, and not as a 'mini-PhD', and master's students should not be assigned research projects with the singular objective of contributing original research within a wider research project.

- → In the Higher Education Qualifications Framework (HEQF)⁶, a master's programme carries no more than 180 South African Qualifications Authority (SAQA)⁷ credits (National Qualifications Framework (NQF) level 9).
- → Accordingly (based on one credit being equivalent to 10 notional hours of learning) where the postgraduate academic year consists of 45 weeks, the minimum registration period for a master's degree is one year (45 weeks X 40 notional hours).

⁴ www.up.ac.za

Definition adapted from the framework of qualifications for the European Higher Education Area (http://www.ond.vlaanderen.be/hogeronderwijs/bologna/)

⁶ For more information, visit the website of the Council on Higher Education (CHE) and the Higher Education Quality Committee (HEQC) at http://www.che.ac.za/heqf/

⁷ For more information, visit http://www.saqa.org.za

2.1.3 CONVERSION OF MASTER'S TO DOCTORAL STUDY

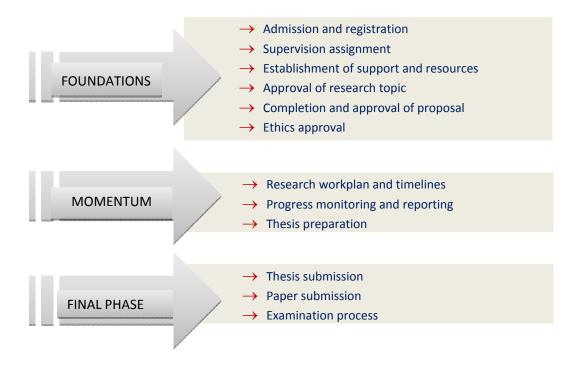
A transition from master's level to doctoral registration, without completion of a master's thesis and the formal award of a master's degree, can be considered under certain conditions. These conditions require that a student has demonstrated that s/he has the necessary high levels of aptitude and intellectual ability. Further, the research study involved must meet the criteria of doctoral degrees with respect to intellectual demand and the potential for production of new knowledge, in order to justify being elevated to doctoral level.

→ Conversion can be proposed through the process outlined in UP policy document S4677/10 (amended) (Upgrading of Master's to Doctoral Study).

THE POSTGRADUATE STUDENT LIFE CYCLE

The sequence of steps that constitute the postgraduate student life cycle is broadly similar for all postgraduate research programmes. Each step requires that processes are in place, and that there is responsibility for the provision of support, service and an enabling environment by an office and/or a member of the University staff.

The diagram below illustrates in outline the life cycle that can broadly be grouped into three phases:



The three phases are adapted from James and Baldwin (1999) ⁸ who capture the role of effective supervisors in the following principles, actions and responsibilities:

FOUNDATIONS

- Ensuring the partnership is right for the project
- Getting to know students and carefully assessing their needs
- · Establishing reasonable and agreed upon expectations
- Working with students to establish a strong conceptual structure and research plan.

MOMENTUM

- Encouraging students to write early and often
- · Initiating regular contact and providing high quality feedback
- Getting students involved in the life of the department
- Inspiring and motivating
- Helping if academic and personal crises crop up.

FINAL STAGES

- · Taking an active interest in students' future careers
- Carefully monitoring the final production and presentation of the research.

These guidelines are accordingly structured to focus on each aspect in order to ensure effective supervision, and finally include services for postgraduate research students that are particular to their institution.

There is an extensive literature on supervision and the evaluation of the experiences of postgraduate students, which reflects the importance of postgraduate education, particularly at research intensive universities. Many of the studies illustrate key principles in supporting students through the life cycle of their research studies, as well as the minimum requirements of effective supervision.

In essence, whether it is in the *foundation, momentum* or *final stages* of the postgraduate's work, supervision is characterised as—

- · an intensive form of teaching and learning, and
- an 'apprenticeship' signalling the importance of sustaining a close relationship with the student, and creating the necessary opportunities and conditions for the student to become a skilled and knowledgeable researcher and academic, or high-level knowledge worker elsewhere.

⁸ For a detailed elaboration of effective postgraduate supervision, see Richard James and Gabrielle Baldwin, 1999. *Eleven practices of effective postgraduate supervisors*. Centre for the Study of Higher Education and the School of Graduate Studies, the University of Melbourne, Australia.

4. THE STUDENT—SUPERVISOR RELATIONSHIP

Postgraduate work in the achievement of higher degrees is predicated, in the first instance, on the relationship between the postgraduate and the supervisor; in different terms, a successful relationship between the student and the supervisor is essential for successful postgraduate study.

In the course of a postgraduate's study, the supervisor serves as *the primary source of guidance* in all processes of proposal preparation, research design, ethics approval, research activities, and access to resources. In turn, the university and departmental systems and structures need to create an enabling environment for both the supervisor and the postgraduate student to function optimally.

In some cases a co-supervisor may be appointed. Co-supervisors are particularly helpful as they may provide alternative or complimentary viewpoints, increase the breadth of expertise available to the postgraduate student and provide supervision should the principal supervisor be absent as a result of illness, sabbatical activities or departure from the institution. Co-supervisors can also facilitate the necessary administrative processes in cases where the main supervisor is based externally to the University.

It should be borne in mind that a perfect match between a supervisor and research student is seldom achieved. For the relationship to succeed, communication, negotiation and compromise are required, and for such interaction to be sustained over the study period, an appropriate degree of trust and mutual respect is essential.

In broad overview, the relationship the supervisor needs to forge with his/her postgraduate student involves three dimensions that are briefly described below.

1. Supervisors provide academic guidance and mentorship to students.

Supervisors serve as role models and therefore should maintain the highest standards in the performance of research. They should emulate and provoke in students ways in which to develop skills in critical and independent thinking, and to exchange ideas and information with other members of the academic community. They also need to ensure that the experience gained by the students will contribute in preparing them for their future as independent researchers in their professional working lives — either in the academy or in other knowledge institutions.

Further, because postgraduate students often experience a sense of isolation academically and socially, supervisors need to create the opportunities for students to become part of the broader scholarly community in the department and faculty, and in the University more generally. There are numerous ways in which to achieve this; for instance, but arranging seminar programmes where students can present their work-in-progress; or by arranging for students to attend lectures or seminars presented by visiting scholars.

Although arranging a programme of events is the responsibility of the postgraduate coordinator in the department or faculty, supervisors have an important role to play in shaping such a programme to the benefit of postgraduate students.

2. Supervisors are key role players in the *administrative efficiency* of postgraduate study.

Supervisors are the key intermediaries between students and the faculty student administration, the Postgraduate Committee, ⁹ the Ethics Committee¹⁰ and the Head of Department. This means that supervisors must be familiar with (and ensure that their students are familiar with) University policies in respect of postgraduate study, including aspects of research ethics, ¹¹ intellectual property rights¹² and storage of research data¹³. Supervisors also need to be sufficiently informed of applicable policies and regulations in order to ensure that they, and the postgraduates they supervise, comply with regulations and that neither is compromised at any stage of the process. In addition, it is important the supervisors and students take full advantage of the many opportunities available and services on offer.

3. As the relationship between the supervisor and postgraduate student is a personal one, the supervisor is often called upon to provide *personal guidance*, also when a student faces a crisis of confidence or problems of a personal nature.

It is advisable in dealing with personal problems that the supervisor remains sympathetic but detached enough to signal that repeated discussions of a personal nature are not invited. Students who experience serious personal problems should be referred to the appropriate student support service, from where they can be referred to professional assistance, if required. ¹⁴

Perhaps the most subtle yet important aspect of supervisor-student relationships relates to different expectations and approaches (sometimes informed by the student's cultural background), and requires that supervisors are sensitive to the changing profile of students, and the demands this places on effective supervision.

The section below considers in some detail the role and responsibilities of supervisors.

5. ROLE AND RESPONSIBILITIES OF THE SUPERVISOR AND POSTGRADUATE

IN OVERVIEW:

1. The overarching responsibility of the supervisor is to prepare a postgraduate student for a research or academic career. This means—

⁹ Every faculty is required to establish a Postgraduate Committee for purposes of quality control with respect to the processes involving the administration of postgraduate study in the faculty. See S6700/03 (amended) (Reg 232a/e) Rules for Postgraduate Committees in Faculties)

¹⁰ See Section 5.6.

¹¹ Code of Ethics for Research (Rt429/99)

¹² Intellectual Property Policy (Rt181/09 (amended))

¹³ Policy for the Preservation and Retention of Research Data (Rt306/07)

¹⁴ For more about the Counselling Services offered by the Student Support Division, visit http://web.up.ac.za/default.asp?ipkCategoryID=7702&sub=1&parentid=3086&subid=2559&ipklookid=15, or phone 012 420 2333

- assisting the student in building knowledge and research skills that makes it possible for the student to start developing a publication record, and
- introducing the student to the relevant academic and professional networks through conferences, seminars, events and the like.

Supervisors must lead by example and must communicate, both through words and actions, that publication is the norm. Supervisors need also to inform their students of opportunities for travel and study abroad, and of opportunities for postdoctoral fellowships at the University.

- Supervisors must be fully informed, not only with respect to University and faculty requirements and regulations, but also with respect to what is expected in terms of scholarly work and academic aspects of research for higher degrees. This may necessitate the participation by the supervisor in research induction and supervision training sessions which are provided by the University or the faculty.
- 3. The University needs to provide an enabling environment for postgraduate studies, and the department and faculty, the necessary time and resources for the supervisor to undertake effective supervision.

The Head of Department needs to provide the necessary space in the work schedule of the supervisor, and, with the Dean, the facilities necessary for the postgraduate's work. Further, ensuring the supervisor's fulfillment of his/her responsibilities with respect to supervision is part of the management task of the Head of Department.

- 4. A supervisor should exemplify the characteristics of a good teacher. This entails the following general qualities—
 - concern for students and their progress and providing well thought through and timely feedback, and
 - effective management by keeping all documentation and records regarding the supervision of each postgraduate student on file.

The latter not only serves as a safeguard against possible disputes in respect of the research schedule or performance expectations, but also ensures continuity of supervision in the case where a postgraduate student is assigned a new supervisor for whatever reason.

In the sub-sections that follow below, particular information is given related to each step in the process of supervision.

5.1 Steps in the Process

5.1.1 ADMISSION AND REGISTRATION

The process of a postgraduate degree begins with the *admission and* registration of the postgraduate student, the assignment of a supervisor, and agreement on the topic of research to be undertaken.

Registration of postgraduates at UP is completed in the faculties, with approval being required from the Dean and the Faculty Postgraduate Committee. This approval needs to include consideration of the planned research topic and the assignment of a supervisor.

- → The UP Admissions Policies and General Regulations set out the admission requirements for students to be accepted into postgraduate programmes.
- → Information regarding the formal application and admission processes is available to prospective postgraduate students through the UP website 15 and the Client Services Centre (CSC).

When a student first considers enrolling for a research degree, s/he will need to be put in contact with a potential supervisor. This can happen as a result of a direct approach by the student to the supervisor, or through the advice of one of a number of advisors (e.g. CSC, Faculty, Head of Department). Any prospective postgraduate student should discuss his or her proposed admission with the Head of Department and/or the prospective supervisor before applying for admission.

Departmental and faculty plans should inform the decision to accept students in that targets should be set as to the number of students who can be supervised, which will in turn depend on the number of qualified academics and the resources available in terms of time, facilities etc. The acceptance of a student should not be completed unless the department has the capacity in terms of human resources and otherwise, to supervise the student.

5.1.2 SUPERVISION ASSIGNMENT

A key catalyst in the progress of research students is the appropriate matching of student and supervisor /s. 16

There needs to be a 'meeting of minds', based on a relationship of trust between student and supervisor in order for the student to tap into the expertise of the supervisor. 17

Heads of Department are responsible for managing the assignment of supervisors to postgraduates. In some cases, this will effectively be confirmatory, where the postgraduate and supervisor have previously discussed and agreed a plan for a research project of mutual interest. In other cases, the Head of Department will be required to identify a match between the student's interests and the supervisor's capacity and expertise. The assignment of supervisors to students is, in all cases, subject to approval by the Faculty Postgraduate Committee and noting by the Faculty Board.

In cases where a research topic cuts across disciplines, joint supervision may be desirable. It is important, however, that one of the supervisors be designated as principal supervisor and the other supervisor(s) as co-supervisor(s). It is the responsibility of the principal supervisor to manage the relationship between the different supervisors.

5.1.3 SUPPORT AND RESOURCES

¹⁵ www.up.ac.za 16 James and Baldwin, 1999:5.

¹⁷ Worrall, Klopper & Lubbe, 2005. *The PhD: Pitfalls and Pathways.* Alternation 12,2: 267.

Adequate access to support and resources is central to students' progress and retention, and the role of supervisors in facilitating this access is important.

It is the responsibility of the supervisor to ensure that the proposed project is feasible and of an appropriate level for the degree under consideration, and that the necessary resources and facilities will be available to enable the student to complete the research. The supervisor must have the capacity to provide adequate supervisory support for the student in terms of having expertise and academic status in the discipline, the time available, and providing access to research facilities (labs, equipment, library, IT etc).

A wide range of bursaries for postgraduate students is available from the University as well as from external sources. Comprehensive information on available bursaries appears on the UP website. 18

5.1.4 APPROVAL OF TOPIC

Students are more likely to flourish when they have a strong personal desire to pursue research questions of their own.¹⁹

The prospective supervisor should, in consultation with the Head of Department, discuss with a prospective student, his/her proposed field of study and potential research opportunities in the field. Together, the student and supervisor must identify and agree on a topic for research which is of mutual interest and relevance.

Ideally, the research topic should be within the supervisor's field of research interest and expertise, and should be aligned with the research programme in which the supervisor is already engaged. Preference should be given to topics that are related to institutional or faculty research themes²⁰, which are in turn informed by national priority research areas. Further, the student (and supervisor) should be advised to focus on topics within the fields of research in which there are particular opportunities for support and collaboration.

5.1.5 COMPLETION AND APPROVAL OF RESEARCH PROPOSAL

The research proposal should be of such a nature that the supervisor is convinced that the student has a sound conceptual overview of the topic and understands where the proposed research will fit in with the existing body of knowledge.

However, it is not unusual and quite acceptable for ideas formulated at the beginning of the study to change or even be discarded as the study progresses.

¹⁸ For comprehensive information on available bursaries, visit http://web.up.ac.za/default.asp?ipkCategoryID=35

¹⁹ James and Baldwin, 1999.

²⁰ For more information on institutional and faculty research themes, visit

http://web.up.ac.za/default.asp?ipkCategoryID=17735&subid=17735&ipklookid=1

The development of the research proposal is a period of exploratory reading and writing. During this time, the supervisor should direct the student towards relevant reading. This is a very important part of the study and should not be rushed.

It could be worthwhile to direct the student to any number of the guides available on writing a research proposal. In some faculties, the format for a research proposal is clearly prescribed, while in others more freedom is allowed.

The purpose of the proposal is to demonstrate that the student has a grasp of the field relevant to the chosen research topic, has read and developed an understanding of the current literature in the field, has the ability to construct a set of research questions and/or hypotheses to frame the research plan, and has developed a preliminary work plan. The proposal will include a formal title for the proposed research project, and, in most cases, will be required to include certification of ethics approval form the faculty Committee for Research Ethics.

The proposal will then be submitted via the Head of Department to the Faculty Postgraduate Committee for approval.

5.1.6 ETHICS APPROVAL

Ethical issues in the carrying out of research should form an integral part of the training of all senior undergraduate and postgraduate students.

Study and research leaders, and supervisors of postgraduate students, are responsible for providing a training environment in which issues relating to ethical values are discussed freely.

- → Students (and supervisors) are required to comply, in their general and academic conduct, with:
- the University Code of Ethics for Research (Rt 429/99),
- the Policy and Procedures for Responsible Research (S4038 (amended 2007)),
- the Plagiarism Prevention Policy (S4726/09),
- the Intellectual Property Policy (Rt181/09 (amended)), and
- the Occupational Health and Safety Policy.21.

Every researcher and academic is responsible for the establishment and execution of the principles of research ethics among students and research staff under his/her supervision. An introduction to the concepts and principles of research ethics need to form part of the orientation of all postgraduate students, and can effectively be handled at department or faculty levels. Supervisors (and project or research leaders) should also serve as role models for students in the manner in which they conduct their research.

²¹ To view the Health and Safety Policy, as well as the Internal Rules: The Safe Use of Soil, Moisture and Density Gauges Containing Radioactive Sources, and Safe Handling of Naturally Occurring Radioactive Material (NORM), visit http://www.up.ac.za/intra/web/en/services/facilities_management/planningadmin/OccupationalHealthSafety/Policies.html

Students must have at least a basic understanding of research ethics and supervisors need to encourage them to be able to identify and deal with the ethical issues relating to their research, results and publications. In addition, supervisors must ensure that all students involved in academic and research activities do so with responsibility and with respect for the highest professional standard.

All research conducted at the University is subject to the procedure for ethics approval by the Ethics Committees in Faculties:

- Each faculty has its own procedures to be followed in order to obtain ethics approval for research, which is set out in a framework document; and
- Research may not be done without the prior written approval by an Ethics Committee or other constituted Committee.

Note also that where animals are used for research, teaching or demonstrations as an activity of the University, an application for ethical approval has to be submitted to the Animal Use and Care Committee (AUCC)²² before the activity may commence. Applications must be submitted electronically in the prescribed format.²³

Finally, supervisors share the responsibility for providing an open and equal research environment which protects the interests of students, assistants and others undergoing training. They must ensure that students are given fair acknowledgement for original work, that students are not taken advantage of for the study leader's own research purposes, that demands made on students are reasonable, and that they are treated with the same professional courtesy as peers.

5.1.7 EXPECTATIONS AND A MEMORANDUM OF UNDERSTANDING

The most rewarding supervisory relationships are those in which the lines of communication between student and supervisor are established early and clearly... the relationship is a partnership which requires a sharing of perspectives and views continually throughout the candidature.²⁴

→ Students are required to comply with University policies and regulations, and the signing of a Memorandum of Understanding between a postgraduate student and his/her supervisor includes acceptance of the plagiarism policy and agreement on intellectual property rights.

(S4722/09)25)

→ The successful completion of this process is the responsibility of the supervisor.

²² The Policy and Procedures of the Animal Use and Care Committee (AUCC) appear in S4564/10, which contains as an appendix the Code of Ethics and Procedures for the Use of Animals in Teaching and Research

²³ The application form and supporting information can be found at:

http://web.up.ac.za/default.asp?ipkCategoryID=7707&sub=0&parentid=1630&subid=3653&ipklookid=14

²⁴ James and Baldwin, 1999: 13.

The MoA for all faculties, excluding the Faculty of Health Sciences, can be accessed through the following link to the UP website: http://web.up.ac.za/default.asp?ipkCategoryID=8768.

The supervisor and student need jointly to agree what the reasonable expectations of each other are. Mutual expectations and lines of communication should be discussed, not only at the beginning of the study programme, but also during the course of study, as expectations can change or evolve over time.

Anecdotal evidence suggests that most disagreements between students and supervisors arise from disparate expectations regarding the degree of direction by the supervisor. For this reason, a formal *Memorandum of Agreement* (MoA) must be signed, setting out the expectations of the supervisor and those of the student. In terms of the MoA, the student also must be provided with the University's Code of Ethics for Research and the Plagiarism Policy, and be referred to the General Regulations applicable to postgraduate studies.

Once the MoA has been completed and signed by both the student and the supervisor, the supervisor keeps the original and forwards a copy to the Data Management Centre. Here it will be scanned and added to the electronic records of the candidate. The completed MoA is directly linked to the student's official student number.

5.1.8 RESEARCH WORKPLAN AND TIMELINES

The importance of setting realistic timeframes to guide and pace students through the different phases of research and writing cannot be overemphasised.

The biggest challenge is to sustain the momentum.

There is ample evidence to suggest that 'timely completion' is important not only in terms of students successfully completing their postgraduate qualification, but also to supervisors and the University.

The research proposal forms the basis of the research workplan that needs to include a time schedule and aspects such as how frequently the student will be required to submit written work, and how often meetings will take place.

Sticking to the research schedule, while important, should not be given precedence over the quality of the work, and supervisors need to keep in mind that they remain 'the quality control guardians in service of their fields of expertise'. Good supervision in this regard means—

... exposing the candidate to the uncertainty of outcomes inherent in authentic research, fear of failure, self-doubt, self-assessment, the need to make difficult decisions, the need to develop a structured research environment and a coherent conceptual framework to make sense of results, and finally, a mind frame of perfectionism that will not consider first attempts and initial formulations to be good enough.²⁶

While not a linear path, the research workplan needs to provide the student and supervisor with a roadmap that structures progress.

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²⁶ Worrall, Klopper & Lubbe, 2005: 267 & 268.

While it is appreciated that some master's and doctoral studies may require more time for completion than the regulations suggest (e.g. where difficulties are encountered in the generation of experimental data), it is important that supervisors ensure that each study is well-structured and planned according to a time schedule that will enable the candidate to complete a thesis within a reasonable time, and longer registration periods should be the exception rather than the norm.

Similarly, in instances when students are studying part-time, careful time and project planning is necessary to minimise the time required to compete the degree.

Supervisors need to be mindful of reasons for dropouts that invariably relates to problems with the supervisor from the student's perspective, limited support structures and resources, and isolation.²⁷ In addition, supervisors need to be mindful of the consequences of undue time lags or delays in completing a research qualification, which include:

- The observation often cited in the literature that long gestation periods invariably result in problematic master's and PhDs, such as data becoming outdated, students losing motivation, and quality getting compromised.
- The University and departments need to optimise postgraduate graduation rates, due to their direct impact on the mechanisms whereby the University is evaluated (nationally and internationally). These graduation rates strongly influence the international ranking of the University and the performance measurement of the department and faculty.
- Furthermore, graduation rates have a direct impact on the subsidy provided to the
 University, governed by the Department of Higher Education and Training (DHET) policies.
 The University receives subsidy from the DHET based on a subsidy formula which uses data
 provided by the universities, via the Higher Education Management Information system
 (HEMIS) which takes into account, among other things, the number of postgraduate
 students registered and the number who graduate within the expected time period. The
 section for reporting on postgraduate education (the HEMIS system of the DHET) does not
 differentiate between part-time and full-time registrations.
- At the level of supervisors, academic researchers are evaluated, through the National Research Foundation (NRF) rating system, ²⁸ on the basis of his/her productivity in terms of training and graduation of postgraduate students, including the time taken to graduate, as described above.
- Certain scholarship programmes include conditions that specify the time to completion, and there are often financial penalties for non-completion. The University will in future also apply requirements in respect of completion times more stringently when it comes to postgraduate bursaries.

5.1.9 PROGRESS MONITORING AND REPORTING

A supervisor should not focus only on areas where the student requires development, but also, and possibly in particular, on areas of strength.

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²⁷ Ibid, 265.

²⁸ For more information on the NRF and the rating of academics, visit http://www.nrf.ac.za

The most important strategy is to get students to start writing early and to write often. ²⁹

At the outset of the postgraduate study, the supervisor should assess the competency of the student in respect of his/her knowledge of the theoretical base, research methodology, technical skills (e.g. statistical analysis, use of specialised equipment), computing skills and writing skills. Where necessary, the supervisor should guide the student in addressing identified knowledge gaps, for instance by way of a systematic reading plan. A number of programmes run by the faculty or the University can also be of assistance in this regard; these should be considered by the student and the supervisor.

In providing feedback to students, supervisors should acknowledge strong points, clearly identify problem areas and make suggestions for improvement. It is the responsibility of the supervisor to ensure that the student is made aware of inadequate progress or of standards of work below that generally expected.

However, it is in the interaction with supervisor that students learn — as supervision is an intensive form of teaching, so is postgraduate study an intensive form of learning. There will inevitably be peaks and dips in progress, and it is the responsibility of the supervisor to use the monitoring of progress as a tool to the benefit of the student by providing high quality feedback, and by inspiring and motivating the student.

The supervisor is required to report in writing to the Head of Department once a year on the progress of postgraduate (master's and doctoral) students under his/her supervision. This enables the Head of Department to prepare an annual report on the progress of all postgraduate students in the Department to the Postgraduate Committee of the Faculty. The Postgraduate Committee, in turn, submits an annual report on general postgraduate matters to the Faculty Board.

5.1.10 THESIS PREPARATION AND SUBMISSION

(The) attitude to the thesis and candidate improves considerably if the thesis is easy to read, well written, well signposted, lacks grammatical/syntactical errors, is well structured, has a well developed narrative (it has to tell a story) and is carefully presented.³⁰

- → General regulations G.58 and G.59 set out the requirements for theses and dissertations.
- → Student need to inform the Head: Student Administration in writing of his/her intention to submit the dissertation or thesis at least three months prior to submission so that examiners can be notified accordingly.

The thesis or dissertation is the main outcome of a postgraduate research programme. Preparation of the thesis takes place in accordance with the research workplan and MoA referred to in 5.1.7 and 5.1.8 above.

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²⁹ James and Baldwin, 1999.

³⁰ Worrall, Klopper & Lubbe, 2005: 272.

It is the responsibility of the supervisor to see to it that the student has prepared the dissertation or thesis in accordance with the technical specifications set out in general regulations and any other requirements set by the faculty. This means:

- The supervisor must ensure that the student is familiar with and observes one of the internationally recognised guides to scholarly conventions on presentation, documentation of sources and the like. In particular, the candidate must use a standard and convention for citation and referencing.
- In some faculties specific prescriptions or guidelines in this regard exist. The supervisor should familiarise him/her with such guidelines, if any, and make sure that students under his/her supervision are also informed of them.

The supervisor must read drafts of the full thesis carefully, focusing on the detail of each paragraph, on the coherence of the academic argument and internal consistency. Before submission, the supervisor has to be satisfied that all his/her suggestions have been attended to.

The standard of the thesis or dissertation is a direct reflection on the University, the faculty, department and the individual supervisor. As expressed elsewhere³¹—

The final push towards submission of the thesis is usually frenetic, as the project moves into a higher gear and the research presentation is given its last polish. During this phase the supervisor adopts a new frame of mind, because now the research needs to be looked at from the perspective of an examiner. Some hard-nosed judgments may need to be made and firm recommendations given.

Before submission, the supervisor must also make certain that—

- errors of spelling and language have been corrected
- · the table of contents is correct
- there is consistency in the layout of the document and the numbering is in order, and
- conventions in respect of referencing and the bibliography have been complied with.

5.1.11 PAPER SUBMISSION

Postgraduate students should actively be encouraged to present papers at seminars and conferences, and to get parts of their thesis published in quality journals before submitting their theses for examination.³²

The University of Pretoria has a specific regulation in this regard.

→ Conferment of the degree may be made subject to compliance with the general regulation governing the submission of an article for publication, namely regulation G.61.

Unless Senate decides otherwise on the recommendation of the supervisor, a student must submit at least one draft article for publication in a recognised academic journal to the Head: Student

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³¹ James and Baldwin, 1999: 41.

³² Worrall, Klopper & Lubbe, 2005: 275.

Administration. In the case of a thesis, proof of submission of an article issued by the accredited journal also has to be submitted to the Head: Student Administration of the Faculty where the student is registered.

The article should be based on the research conducted by the student for the dissertation/thesis.

If the supervisor is not a co-author, the draft article has to be approved by the supervisor. It is the responsibility of the supervisor to ensure that all the necessary processes for revision and resubmission are followed.

5.1.12 EXAMINATION PROCESS

The examination process is the final stage in the student serving his/her apprenticeship.

Problems with the dissertation/ thesis are usually not solely that of poor research but also of poor supervision and a lack of quality control at the host institution.

The examiner's academic judgement is absolutely critical.³³

- → The Postgraduate Committee appoints examiners in accordance with general regulation G.60.
- → Supervisors should acquaint themselves with the general regulation in respect of the identity of members of the examination panel, the criteria for evaluation and the examiners' reports.

The supervisor, in consultation with the Head of Department, compiles a list of names of potential examiners both inside and outside of South Africa from which the Postgraduate Committee appoints examiners. Examiners should be expert in the area of study, should be likely to be respectful of the study approach taken by the student, and should ideally be able to make a contribution to the career development of the student.

The faculty may set additional oral and/or written examinations as a requirement for the conferment of the degree. The requirements for admission to the examination are set by the faculty. Where there is an oral defense, the candidate should be given every opportunity to show her/himself in a positive light.³⁴

As mentioned earlier, supervisors need to keep in mind that, in a very real sense, the department, faculty and the University, as well as the individual supervisor, are also being examined.

5.1.13 PRESERVATION AND RETENTION OF RESEARCH DATA

It is good practice to retain research data after publication of the results, and the University has a particular policy that must be adhered to.

- → The Policy for the Preservation and Retention of Research Data (Rt 306/07) applies to all academic staff and students.
- → In addition, all theses and dissertations must be submitted in electronic format to the UPeTD system in accordance with the Policy on University of Pretoria Electronic Theses and Dissertations (S4844-46/08).

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³³ Worrall, Klopper & Lubbe, 2005.

³⁴ Ibid.

The policy of retaining research data enables the verification of the research and allows for discussion with colleagues. The policy is aimed at the protection of students, researchers, principal investigators and ultimately, the University, against a variety of disputes concerning published or patented research, and the retention of detailed research records for later access.

5.2 Summary of supervisory responsibilities

Considerable detail is given in the sections above on the role and responsibilities of supervisors. The summary table below identified the steps in the process – from admission and registration, through to the final step of the University maintaining an electronic record of the data and theses. It may serve as a useful tool in tracking progress and ensuring that no one element delays or scuppers progress.

SUMMARY CHECKLIST OF SUPERVISORY TASKS

STEPS IN THE PROCESS

SUPERVISORY COMMENT RE SPECIFIC TASKS AND

ADHERENCE TO TIMELINE

SIGN-OFF DATE

Admission and registration

Supervision assignment

Providing support and resources

Approval of research topic

Completion and approval of research proposal

Ethics approval

Research workplan and time lines

Progress monitoring and reporting

Thesis preparation

Thesis submission

Paper submission

Examination process

Preservation and retention of research data

6. RESPONSIBILITIES OF POSTGRADUATE STUDENTS

The responsibilities of the postgraduate, as with the supervisor, need to be sustained throughout the life cycle of the study programme. The relationship clearly cannot be built on one-way communication and will require the student accepting full responsibility for his/her own learning and development, and the successful and timely completion of his/her qualification.

Effective communication between the postgraduate student and the supervisor is a key element of a successful postgraduate study. While the supervisor has specialised knowledge and experience in the field of the study, he/she also offers invaluable guidance in how to approach the study. The postgraduate, in turn, needs to remain available for discussion and open to the guidance available.

Following the three phases in the life cycle of postgraduate research study, the description given below in many ways underscores the role and responsibilities of the student *in partnership with* his/her supervisor, and highlights key principles in the effective monitoring of progress.

FOUNDATIONS

- 1. *Getting organised* involves the following steps that initially need to be pursued in parallel until the foundations are stable, and always in discussion with the supervisor:
 - Registration and securing financial and other resources that will be needed successfully to pursue postgraduate study.
 - Becoming familiar with the rules and regulations of the University, as well as the resources and opportunities for self-development that are offered.
 - Finding the right supervisor for the research topic that interests the student or that may be part
 of a larger research programme of the University.
 - Ensuring that the supervisor and project partnership is right and discuss reasonable expectations;
 - Undertaking a Memorandum of Agreement (MoA) with the supervisor.
 - In discussion with the supervisor, refining the research topic and start developing a research proposal.
 - Becoming familiar with the Library and the services offered, and start collecting key readings that will help in developing a strong conceptual basis for the research proposal, and that can subsequently be extended in the full literature review.
 - Becoming familiar with the department/faculty and the opportunities offered.
 - Completing the research proposal for submission and getting ethics approval (usually within six months of being registered as a full-time student).
 - Developing a research workplan with time lines that can be used as a tool to monitor progress,
 and pace both student and supervisor.

Needless to say, the strength of the foundations established becomes a keystone in giving postgraduates a head start in progressing with their studies. In turn, the MoA spells out mutual expectations, while the workplan is intended as a roadmap that helps students stay on course — and stay the distance!

MOMENTUM

- 2. Doing research and maintaining momentum, or the 'middle' phase, is perhaps the most difficult and where the intellectual interests and abilities of students need to be stretched. This phase typically involves:
 - Starting to write early and writing often.
 - Finding appropriate literature and then study, assess and understand that literature so as to complete a review that organizes and makes clear that understanding.
 - Starting with the research work and undertaking the necessary data gathering, field work, laboratory experimentation, data processing and analyses.
 - Adhering at all times to all general academic ethics with regard to integrity and plagiarism, and ethics requirements relating to the research work.
 - Participating in research projects and programmes as determined by the supervisor, including attending symposia, seminars and conferences.
 - Assisting where appropriate in teaching and departmental activity, such as the drafting of funding applications.

In order for all this to happen smoothly, the postgraduate student must attend regular appointments with the supervisor as agreed, and communicate regularly with respect to results achieved and general progress in the research project.

Students who pay attention to the guidance of supervisors with respect to how the research should be conducted, including the best research approach, appropriate methodology and materials to be used, as well as the interpretation of results, will benefit in terms of time efficiency and personal fulfillment.

If and when difficulties arise, as they invariably always do, the postgraduate student should inform his/her supervisor immediately. The difficulties may relate to trivial administrative matters, or may relate to more substantive academic difficulties which might arise in the study programme. The supervisors can then advise in respect of timely corrective action and provide moral and practical advice.

FINAL STAGES

- 3. *Getting it done* builds on the foundations and momentum maintained, and could be the most fulfilling yet stressful period in preparing the final dissertation of thesis. It includes:
 - Renewing annual registration with the University at the stipulated times until the degree is awarded. Please note that continued registration is dependent upon a favourable supervisor's progress report. Candidates who consistently fail to make progress may be deregistered.
 - Writing (and re-writing sections) of the dissertation or thesis.
 - With the approval of the supervisor, obtaining professional assistance with language editing and layout.

- Attending to revisions proposed by the supervisor.
- Checking and rechecking the thesis for layout and numbering inconsistencies, proofreading errors and presentation.
- If necessary, purchasing items that may be required to complete the production of the dissertation or thesis.
- Submitting the thesis.
- Preparing for and presenting an oral defense of the thesis, where this is a requirement.
- Attending to revisions proposed by internal and external examiners. (Note that while an
 examiner may call for resubmission and the re-examination of a thesis, a thesis can only once be
 submitted for re-examination).
- Completing the production of the final bound hard and electronic copies and submitting these to the Library before graduation.
- Producing at least one research paper in a format that is ready for submission to an accredited research journal by the time the faculty research committee considers the assessment results.

The quality of the thesis depends to a large degree on the acquired skill developed in writing and editing as part of the student's research training. As noted elsewhere, 'the integrity of a thesis relies on it being demonstrably the student's work and evidence of his or her ability to write and argue'. Where students experience writing problems, these should be detected early on in the process, and appropriate actions taken to assist students in developing these skills.

Thus also the important dictum, start writing early and write often.

Finally, the definition and requirements of master's and doctoral degrees (see section 2.1) need to serve as important benchmarks in assessing the intellectual ability of postgraduate students, as manifested in the final dissertation or thesis submitted.

³⁵ James and Baldwin, 1999: 42.