Good Practice in the

Supervision & Mentoring of Postgraduate Students

It Takes an Academy to Raise a Scholar

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Centre for Leadership in Learning

The Centre for Leadership in Learning (CLL), through its Institute for the Scholarship of Teaching and Learning, is pleased to extend to faculty this handbook to help guide each of you in providing excellent supervision to graduate students. We hope that whether you are a beginning supervisor or one with years of experience you will find useful tips and strategies to make your important role the most effective it can be.

We have tried to address the most common questions which supervisors have about establishing and sustaining a supervisory relationship coupled with tools that you may find useful in monitoring your input and your students' progress. In addition we have referenced significant amounts of educational research which may interest you.

We know that the job of supervising graduate students is a complex and demanding one. If supervisors can anticipate and avoid problems, supervision can be one of the most rewarding aspects of the teaching in a university environment. Your time is at a premium so we have attempted to condense the best available information into a highly readable, practical handbook which includes pre-tested tools that you are welcome to use as you wish to make your job easier. Try them out and let us know if they are working for you.

This handbook originated with the interuniversity collaboration known as TUTOR-PHC (Transdisciplinary Understanding & Training on Research - Primary Health Care). We have tried to reflect the inter- and trans-disciplinary nature of today's research climate and how the different research cultures shape supervision. We hope that you find your experience reflected in these pages and we will contribute to your thinking about supervision.

We know that it takes an academy to raise a scholar and welcome any questions or suggestions that you may have for improvement.

Susan Vajoczki, Ph.D.
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forward

Introduction

The relationship between a graduate student and an academic supervisor is critical to the success of the learning experience, to the sense of satisfaction of both participants, to the development of research skills, and to the shaping of successful career trajectories of both the student and the supervisor. In the academy, this is a huge challenge with little training of the faculty member, mismatched expectations, and few resources to support success. "Muddling through" is often the order of the day. This document is intended to provide a resource to supervisors – both those new to the role and old hands – and to thier graduate students about good practices in the supervision and mentoring of postgraduate students. We are also aware that supervisors use their own experiences as a student, for better or worse, as the basis of their own supervisory practice. We would encourage supervisors to share and discuss relevant parts of this handbook with their graduate students.

We will look at both the practice of supervision and mentoring as mechanisms for managing student research to a successful completion. Throughout we will try to provide tools that can be used by individuals to make decisions about who to supervise, how to negotiate the relationship, how to monitor progress, and how to deal with common problems. We hope that by making many of the prerequisite conditions for and skills to achieve successful supervisory relationship explicit we will help you to develop your supervisory skill set, avoid unnecessary problems, and find even more satisfaction in your role as a postgraduate supervisor.

For the purpose of this handbook we differentiate between supervisors and mentors while recognizing that supervisors often take on the role of mentor as part of the supervisory relationship. Many academics find themselves in mentoring roles with students, often without realizing the role that they are playing. Let's begin by defining the commonly used terms.

What is mentoring?

Each of us likely can identify a person, or perhaps several people, who have influenced how we approach our academic life. Sometimes they are teachers, employers, or friends. What they always have in common is a relationship in which they used their own experience to help you to achieve your own goals. They have shared their personal experiences and informally transmitted the knowledge they have gained to someone less experienced, so that you may grow and mature as an individual. This is a relationship in which personal development is the key outcome.

"*Mentoring* is a process for the informal transmission of knowledge, social capital, and the psychosocial support perceived by the recipient as relevant to work, career, or professional development; mentoring entails informal communication, usually face-to-face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom, or experience (the mentor) and a person who is perceived to have less (the protégé)".

Bozeman, B. & Feeney, M.K. (2007). Toward a useful theory of mentoring: A conceptual analysis and critique. *Administrative and Society* 39 (6): 719-739.

Who is a Mentor?

A mentor is someone who engages in a long term, ongoing relationship with a student by mutual agreement. While the relationship may be initiated by arrangements such as academic advising or classroom teaching, it is sustained because of a perceived reciprocity between the participants. The relationship is regulated by the participants for their own personal ends.

What is Supervision?

Supervision is an activity undertaken by someone occupying a formal role within an organization that has (more or less) explicit expectations and accountabilities to both the person being supervised, and the organization which provides the context for the supervisory relationship. The relationship is ultimately defined by the organization. The position is occupied by a person approved by the organization who can be removed from or replaced in that role under conditions specified by the organization. The organization (e.g., university through the School of Graduate Studies) is responsible for the quality control (e.g., supervisory committee) of the supervisory relationship through whatever mechanisms the organization has in place (e.g., student appeals, student evaluations, performance evaluations). Because it is an organizational position, the expectations of both the supervisor and the student should be explicit (even if only in a minimal way) and comply with the norms of the organization (e.g., student or faculty code of conduct).

There are serous imbalances in the power relationship between supervisors and students. Generally, therefore, the "rules" of the relationship must either favour the interests of the student or at least not disadvantage the student. While graduate supervision is based on a contractual relationship between a supervisor and a student, its function is to achieve the academic goals of the university to prepare advanced level researchers or practitioners. Pearson and Brew (2002) note that "(R)esearch students are being expected to complete their degrees in minimum time and meet new demands for developing a broader skill set for future employment, which is increasingly likely to be outside universities" (Pearson and Brew, 2002; 136).

"***Supervision*** in the academic context is a process to facilitate the student becoming an independent professional researcher and scholar in their field, capable of adapting to various research arenas, whether university or industry based".

Margot Pearson & Angela Brew. (2002). Research Training and Supervision Development. *Studies in Higher Education* 27(2): 135.

To summarize, mentoring and supervision both have a role in the academy in relation to postgraduate student learning. Mentoring focuses on personal growth; supervision focuses on the execution of organizationally determined educational goals. The joint aim of postgraduate research supervision and mentoring is to enhance, monitor, and evaluate the student's learning experience.

Research Supervision vs. Clinical Supervison

Many professional programmes have both research and clinical/practice supervisors. Although the supervision process may be similar, the focus of the supervision is different; the first is focused on research skills and the second on clinical skills. Both must attend to ethical issues and the development of the student as a professional practitioner. However, the "rules of engagement" may be quite different for each supervisor since they may be accountable to different institutions (e.g., university vs. hospital). The student may also have a different systemic avenue of appeal in each relationship. Screening students, establishing learning contracts and the necessity of formal, thoughtful evidence-based evaluation characterizes both relationships.

A clinical supervisor has the additional responsibility of protecting the client/patient from professional incompetence and ineptitude on the part of the student. The principle of "first do no harm" must supersede student learning needs. While students conducting research certainly can harm research subjects, the external regulation of research by systems such as ethics boards reduces the risk in the research enterprise. It is the clinical supervisor who is placed in the forefront of client/patient protection, a role which may compromise a primary commitment to the student. The blending of research and clinical supervisory roles should be examined in each individual case to ensure that the rights and responsibilities of each participant are protected.

Lee (2007) has provided a thoughtful framework for thinking about research supervision and the professional and personal growth of graduate students. We provide it as one way of conceptualizing this complex relationship.

Professional Role ⟷ **Personal Self**

Functional	Enculturation	Critical Thinkng	Emancipation		Relationship Development
Supervisors Activity	Rational progression through tasks	Gatekeeping	Evaluation, Challenge	Mentoring, Supporting constructivism	Supervising by experience, Developing a relationship
Supervisors Knowledge & Skills	Directing, Project management	Diagnosis of deficiencies, Coaching	Argument, Analysis	Facilitation, Reflection	Emotional intelligence
Possible Student Reaction	Obedience, Organised	Role modeling	Constant inquiry, Fight or flight	Personal growth, Reframing	Emotional intelligence

(From: Lee, A. (2007). Developing effective supervisors. *South African Journal of Higher Education* 21(4): 680-93).

Lee's model attempts to provide a functional framework to capture the multiple aspects of the supervisory relationship. The functional dimension of the model addresses the program management aspect of the relationship. Enculturation encompasses the socialization of the graduate student into the role of academic researcher and discipline specialist. The ability to discuss, analyze, and question comprise the elements of critical thinking in this model. Emancipation further develops the student's academic independence as a scholar separate from the supervisor. Finally she identifies the supervisory relationship as one from which the student draws enthusiasm, inspiration, and nurture. Her research has included and examination of the knowledge and skills required of a supervisor, the advantages and disadvantages of each approach, and the degree of independence that can be achieved by the graduate student. For a more detailed explanation of her work we refer you to her upcoming publication, Lee, A. (2011) *Successful Research Supervision: Advising Students Doing Research*. New York: Routledge.

If it's so complicated, why would I ever do it?

Supervision and mentoring can be some of the most satisfying and personally rewarding aspects of an academic's job. While supervision of graduate students is a common expectation for all regular faculty members, it comes from the tradition that only the best should be supervisors. Graduate supervision was once (and in some institutions remains) the privilege of tenured faculty members. As such, it is viewed in some academic circles as an earned status reflecting the confidence of the academy in your knowledge and skills to create the next generation of academics and/or practitioners.

As if all of those accolades were not enough, it's fun! Graduate students challenge your assumptions, test your knowledge, ask intriguing questions, introduce you to new ideas, remind you of old myths, and generally enrich your academic life in meaningful ways – and certainly in ways that are far more interesting than most academic meetings.

Graduate students have the intellectual freedom to explore eccentric ideas, follow hunches, and take side trips into the wonderful world of new and untested ideas. They have the luxury of time to read and the discipline to write. They still believe they can have a career pursuing ideas and ideals. They remind us of ourselves before we actually embarked on our careers. They remind us of what is important.

In this handbook you will have a chance to learn what some of your colleagues have discovered about supervision and mentoring including how to select a student, how to contract with a student, and how to evaluate a supervisory or mentoring relationship as it matures. We will also pay attention to some of the common challenges encountered in these relationships, how to spot these hurdles and strategies you might try to get things back on track.

We hope that you find this information useful.

The Practice of Postgraduate Supervision

The practice of postgraduate supervision requires a high-quality research and learning environment for both the graduate student and supervisor. The education of a graduate student is greatly affected by the nature of the supervision and the quality of communication between graduate student and supervisor. (See *Appendix A: Eleven Practices of Effective Postgraduate Supervision*). Research suggests that when students work closely with and communicate effectively with their supervisors, the quality of their research and their educational experiences improves (James & Baldwin, 2000; Wisker, 2005; Lee, 2008). Supervisors are also more likely to experience satisfaction in their role. The question then becomes: what constitutes a close relationship and effective communication?

There is increasing recognition that higher education has become dominated by a market-driven, consumerist mentality (Cote & Allahar, 2007). A strong factor in assessing the quality of an institution's research climate is the volume of graduate students and the number of doctoral degrees awarded. The outcome of these issues is leading to a focus on efficiency and the image of students as customers with rights (Clark et al., 2009).

Consequently, this outcome places increased pressure on supervisors to ensure that graduate students finish on time and may change the view of graduate work from a collaborative relationship to one based on services and product. As a result, graduate supervisors may feel compelled to over-direct students in the development of their research to ensure successful, timely completion rates (Deuchar, 2008). Many supervisors are concerned that an increased focus on external accountability is already threatening academic autonomy and innovation.

This new knowledge economy view may impact the style of research supervision that supervisors adopt as well as expectations of the graduate students about their education experience. Clearly, both the supervisor and the postgraduate student are responsible for creating and sustaining this contractual relationship. While there are certain joint responsibilities, the roles and responsibilities of each do vary in a number of ways. The roles and responsibilities themselves have not changed much over the last few decades, what may be changing is how these are addressed. Let's begin by looking at the roles and responsibilities of both supervisors and graduate students.

What is the role of a supervisor?

The supervisor's role can be defined as a complex, professional one, which requires much more than good will and spare time. It is an intensive form of teaching, and guidance, in a much broader sense than just the transfer of information (James & Baldwin, 1999). The role is a supportive one where the supervisor may be a mentor, coach, guide, model and manager, with the goal of preparing graduate students for careers both within and outside academia.

Fundamental disciplinary differences lead to varied roles and practices. Supervision models vary dramatically across disciplines. In the Laboratory Sciences for example, a group-based apprenticeship supervision model is more common. Supervision tends to be embedded in the research process and a student's research may be closely linked to the supervisor's research. As such, supervisor and student may be in contact on a daily basis. Conversely, in the Arts and Humanities an individual apprenticeship model is more common. Student research is typically independent or co-dependant with the research of the supervisor. The degree of supervisor involvement may change throughout the candidate's tenure, where early on the supervisor steers the research, to later years when the student is the owner of the research (Hockey, 1997).

The success of the supervisory relationship relies largely on the supervisor's role in providing the expertise and support necessary to foster in their graduate student the skills that will ensure the production of a successful thesis. To accomplish this progression it is critical that a supervisor has the time to support the candidate for several years. Given the importance of the supervisor's role and the time and energy invested, how do supervisors determine whether or not to accept a candidate for supervision?

Appendix B: Ten Questions to Ask BEFORE you Take on Graduate Student Supervision highlights a number of important issues to consider before you make the decision to accept a particular graduate student for supervision. Consideration of these questions provides an opportunity for you to critically evaluate whether this endeavor is right for both you and the student. Some of the questions ask you to consider your own core beliefs, values and philosophy of higher education. This exercise may inspire in you a level of self-knowledge that you may not have thought about for some time.

> The role of the supervisor is to provide a high-quality research and learning environment for the graduate student. The supervisor through mentoring and advising develops a professional interpersonal relationship with a graduate student that is conducive to scholarly activities, intellectual enhancement and promotes the student's professional career.
>
> James & Baldwin, 1999

Responsibilities of a Supervisor

The supervisor's responsibilities include being available to support their graduate students at every stage, from formulation of the research project through to establishing methodologies and discussing results, to presentation and possible publication of dissertations and research. Graduate supervisors must also ensure that their students' work meets the standards of their University and their academic discipline.

The following is a list of fundamental supervisor responsibilities compiled from the literature, which supports the facilitation of good practice in graduate supervision:

- assist your student with the selection and planning of a suitable and manageable research topic;
- be sufficiently familiar with the field of research to provide guidance and/or have a willingness to gain that familiarity before agreeing to act as a supervisor;
- be accessible to your student for consultation and discussion of academic progress and research (the frequency of meetings will vary according to the discipline, stage of work, nature of the project, independence of the student, full- or part-time status, etc.);
- establish (with input from your student and colleagues where appropriate) a supervisory committee, and convene at least an annual meeting, to evaluate student progress;
- respond in a timely and thorough manner to written work submitted by your student, with constructive suggestions for improvement and continuation (good practice suggests that turnaround time for comments on written work should not exceed three weeks);
- make arrangements to ensure continuity of supervision if you will be absent for extended periods, (e.g. a month or longer);

- assist your student, when necessary, in gaining access to facilities or research materials;
- ensure that the research environment is safe, healthy and free from harassment, discrimination and conflict;
- work to achieve consensus and resolve differences when there is a conflict in advice or when there are different expectations on the part of co-supervisors or members of the supervisory committee;
- assist your student in being aware of current graduate program requirements, deadlines, sources of funding, etc.;
- encourage your student to make presentations of research results within the University and to outside scholarly or professional bodies as appropriate;
- encourage your student to finish up when it is not in the student's best interest to extend the program;
- support and acknowledge your student's contributions and successes in writing, presentations, and published material;
- ensure that recommendations for external examiners of doctoral dissertations are made to the graduate program advisor and forwarded to the Faculty/School of Graduate Studies in a timely manner;
- assist your student to comply with any changes that need to be made to the thesis after the thesis or dissertation defense; and,
- adhere to the university's policy regarding ownership of intellectual property (Brew & Peseta, 2004; Lee, 2008; Wisker, 2005).

See *Appendix C: A Checklist of Critical Things to Know at your Institution* for a suggestion of institutional policies and practices that you will want to be aware of at your own institution.

Graduate Student Responsibilities

Graduate students make a commitment to devote the time and energy needed to engage in research and write a thesis or dissertation. The supervisor has a right to expect substantial effort, initiative, respect and receptiveness to suggestions and criticisms.

The following is a list of fundamental responsibilities of the graduate student compiled from the literature:

- work with your supervisor to select and plan a suitable and manageable research topic;
- make a commitment and show dedicated efforts to gain the background knowledge and skills needed to pursue your research project successfully;
- develop a plan and timetable for completion of all stages of your research project in conjunction with your supervisor;
- adhere to a schedule and meet appropriate deadlines;
- meet with your supervisor when requested and at mutually agreed upon times and report fully and regularly on progress and results;
- seriously consider the advice and criticisms received from your supervisor and other members of your supervisory committee;
- be thoughtful and reasonably frugal in using resources provided by your supervisor and the University, and assist in obtaining additional resources for your research or for other group members where applicable;

- conform to university, faculty and graduate program requirements, including those related to deadlines, dissertation or thesis style, conflict of interest;
- review the literature regularly and keep your literature survey up-to-date;
- maintain exemplary records of your experimental/theoretical work (so that others can replicate your results);
- keep in regular touch with your supervisor who should be reasonably available for consultation; and,
- follow the university's policy regarding ownership of intellectual property (Brew & Peseta, 2004; Wisker, 2005).

Once you have made the decision to supervise a graduate student and considered what your roles and responsibilities are, where do you go from there? A key influence in developing your vision of effective supervision is your own experience as a doctoral student. This can have a powerful impact on your role as a supervisor. Exploring your experiences from a practical perspective can inform your own view of supervision. Consider how you might emulate, add to or avoid certain practices based on these questions.

- What kind of supervision did I receive?
- What did I find helpful and unhelpful about the supervision I received?
- How well would the supervision I received apply to today's graduate students?
- How did my supervisor support my progress developmentally through my graduate program?
- How did my supervisor prepare me for my career?
- Are there areas of supervision that I would have liked to receive?
- What might those be?

The answers to these questions may help you to define the kind of supervisor you want to be. Engaging in critical questioning of your preferred approach will aid you in identifying the building blocks for developing successful relationships with your graduate students. Ultimately your vision will help you to clarify your concept of research supervision.

The Supervisory Relationship

What Graduate Students Want in a Supervisor

The supervisory relationship is an association between student and supervisor. While it is important for you to determine your own supervisory style, one that feels right for you, every graduate student also has expectations of a supervisor. Your student's expectations will have a unique affect on your style in one way or another. In reflecting on your supervisory style you are most likely envisioning the characteristics you expect a graduate student will possess. On the other hand, knowing what graduate students say they want and need in a supervisor can assist you in articulating your vision of your own supervisory style.

The following list compiled from the literature illustrates preferences that graduate students commonly cite when asked what they consider to be the important characteristics of a 'good' supervisor (James & Baldwin, 1999; Doyle et al., 2005; Ramani et al., 2006.)

The "Good" Supervisor

- Encourages autonomy and independence
- Flexible
- Friendly
- Has expertise in the research area
- Regular contact
- Provides constructive and timely feedback
- Provides professional guidance
- Personable
- Supportive

These characteristics are not listed in order of importance. The research suggests that the views of students, like supervisors may change over the course of the candidacy dependant upon a number of factors including needs, expectations, challenges and stage of the project. In the first year of the candidacy a student may require more guidance. As the research develops the supervisor's expertise coupled with more regular contact may be of greater importance to the student (James & Brown, 1999; Nightingale, 2005; Brown & Atkins, 1988).

Developing the Relationship

The relationship between supervisor and graduate student is a multi-faceted one. The direction of the research, thesis or dissertation is a very important part of the supervisor's role but by no means is it the sole aspect of effective supervision. As with any working relationship, it is vital to establish a clear understanding of the roles and responsibilities of each member early on in the process. As a supervisor you work with a graduate student, possibly a co-supervisor and a team over three or more years. Spending some time at the beginning to consider how the relationship will work is valuable in terms of developing a long-term, mutually effective relationship. Given the central role that the relationship between supervisor and graduate student plays, focusing on the relationship early on contributes greatly to the successful completion of the graduate program.

In developing the relationship there are two areas that must be considered; the academic relationship and the personal relationship. These inevitably intersect with each other but it is useful to first distinguish between each one separately.

A good match between student and supervisor, both academically and personally, is a key catalyst for the development of a successful relationship and progress of a graduate student.

The Academic Relationship

The academic relationship between supervisor and graduate student is unique. Assessing student needs in the early stages is essential. Many supervisors do this intuitively, yet a more systematic approach can be very useful. Knowing the knowledge and skills your student has at the outset and the areas where s/he needs to develop serves as the beginning of an action plan. As a supervisor you need to know:

- what knowledge and skills your student brings to the project;
- the areas s/he needs support; and,
- how s/he is likely to approach the research.

Student self-assessment is an effective way to initially begin to assess where the student is starting from and to develop an action plan.

Appendix D: Graduate Student Skills Inventory outlines skills necessary to fulfill graduate degree requirements. Having your student complete this self-assessment early in the process can help in developing an academic action plan. It may also be useful to revisit this list at regular intervals to determine how your student's skill set has changed. A useful exercise might be for both of you to complete the inventory later on and compare your views on the student's progress.

Appendix E: A Sample of Skills Training Requirements for Research Students presents a list of skills training requirements that research students would be expected to develop by the end of their candidacy. It is written by the Quality Assurance Agency for Higher Education in the UK for the purpose of providing a clear and consistent message for universities to help ensure that training is of the highest standard across all disciplines. A comparison of this skills list and the graduate student inventory may serve to aid you and your student in planning the course of action.

Most supervisory relationships are essentially dyadic. While this is likely the most significant relationship graduate students will have, they may depend on a range of other people as well to provide forms of assistance and support throughout their graduate education. These may include: department, laboratory, and disciplinary network colleagues; post-docs; other students; and, technicians. Encouraging these relationships is important, as they are also a part of the student's learning process and can support the supervisory role.

Networks which are characteristic of academia are often formed through these relationships. As an aspect of 'cultural capital', these networks can provide opportunities for future academic endeavours including further collaboration, research networks and professional advice.

The Personal Relationship

Not only is it important to establish the academic relationship, it is also necessary to consider and establish some level of a personal relationship. Personalities figure prominently in graduate supervision. The relationship between supervisor and graduate student is not only more personal than other academic endeavours but in this instance it is also long-term. The progress of a student is greatly impacted by the nature of the relationship that develops. Investigations of reasons for non-completion of a postgraduate degree suggest two major issues: a mismatched relationship, such as a personality conflict; and, external personal factors such as finances and family commitments. These reasons extend beyond academic issues.

Often supervisors question how personal a graduate supervisory relationship should be. Based on the dynamic between supervisor and graduate student the degree of the personal relationship and commitment can vary enormously. Many institutions specify in their guidelines for supervisors whether or not they are expected to provide support on a personal level and what that might entail. Generally, it is suggested that supervisors have a responsibility to at least direct students to sources of assistance if personal issues arise. How much help you provide is a very individual decision. Finding that mutually comfortable level of personal commitment, based on your personality, goals, and self-interest, and that of your student is critical. Today diversity in terms of gender, age, nationality, race, disability, sexual orientation, social class, non-traditional students and students with family responsibilities will also impact the nature of the relationship. The issue of diversity is of utmost importance and raises unique challenges over and above this already complex relationship. It will be addressed in detail in Section III of this handbook.

There are a number of differing views on what the nature of a personal relationship should be. Some recommend that supervisor and graduate student should not become friends. Based on this view, supervisors have power and as such, the two can never be equal. A relationship on a personal level may result in complications, hurt feelings and can be destructive to the academic relationship. It is suggested that the relationship can still be cordial, personal, enjoyable, and fun (Ramani, Gruppen & Kachur, 2006). Others believe that a supervisor is required to understand the student as a whole person, taking an interest in a range of non-academic activities involving family, friends, work and community as these demands may impinge on the student's academic work (James & Baldwin, 1999).

Some supervisors do establish close, collaborative relationships and friendships with a student that lasts well beyond the completion of the degree. Supervisor and student spend many hours together working towards a common goal. Given the intensity of this relationship, there is potential for the relationship to become too personal. At its extreme, a sexual relationship between supervisor and student is never acceptable. The academic profession considers this unethical, and the policy within all universities is that sexual relationships between faculty and students, is an abuse of power which must be avoided.

The inherent power imbalance adds complexity to the process of developing a relationship. The challenge is in striking the balance that is right for each individual supervisory relationship. The key is in discussing with your student early in the relationship what each is comfortable with on a personal level. An awareness of the power complexities in the supervisory relationship and the ability to successfully negotiate these dynamics is crucial. The best way to handle a problem is to identify it while it is small and manageable, and to collaborate on finding a mutually agreed upon solution. It is also important to consider that these discussions will likely need to be revisited a number of times over the course of the candidacy as the relationship develops and changes.

In a practical sense how does one show an appropriate level of concern and personal interest in a graduate student? The following is a list of suggestions that may guide you in developing a caring, supportive relationship with a graduate student:

- be cognizant of the interaction between the personal and the academic;
- if an issue arises try to determine if it is a personal problem that is affecting their work;
- if you are interested and approachable let your student know early on that you are available to listen sympathetically if s/he wants to discuss a personal issue;
- be supportive and a sympathetic listener but maintain an appropriate detachment;
- be flexible in your requirements of a student in times of personal stress. (This requires you to determine whether it is a pseudo-crisis to evade their work or a genuine personal crisis);
- consider what your limits are and recognize what you think you can and should do; and,
- if there is a serious problem that requires an expert, know where to refer your student (James & Baldwin, 1999).

Good communication creates a solid basis for navigating both the interpersonal aspects as well as the academic aspects of the relationship.

Negotiating Shared Expectations

Clear and frequent communication is considered a key element of successful graduate supervision. Several studies point to mismatched expectations due to a lack of communication between supervisor and graduate student as the number one reason graduate supervision breaks down (James & Baldwin, 1999; Rackham School of Graduate Studies, 2006). Identifying and negotiating you and your student's expectations early on in the relationship creates a sound foundation on which you can build that relationship over time.

Due to the inherent differences in power and authority between supervisor and graduate student it is advised that you as the supervisor be the one to initiate conversations about expectations. It is essential to be open and frank about mutual expectations and needs in the relationship. These can be challenging conversations to have but openness and clarification in the early discussions will establish the basis for ongoing communication and may prevent years of frustration for both of you. Being frank at the beginning of the project sets the stage for a successful, long-term relationship. Things you think are obvious may not be so obvious to your student.

Areas you may want to consider clarifying and negotiating expectations with your student include:

- the extent and level of direction you give your student;
- the level of independence you expect of your student;
- preparation for, frequency and the manner in which consultation will occur and the feedback that will be given;

- frequency of submission and drafts of written work, and progress reports;
- your role in editing your student's work; and,
- the manner in which differences in ideology or opinion will be managed.

In *Appendix F: Exploring the Expectations of the Supervisor and Graduate Student* an inventory is provided that both you and your student can complete early on in the negotiation process. As it is based on a graded scale, it clearly defines the expectations for both you and your student. A comparison of each statement can stimulate the discussion and negotiation around each of your expectations. This form may also be useful for renegotiating the relationship throughout the supervision.

Reflecting upon and negotiating your expectations and that of your student will assist in creating the necessary communication patterns to engage in a successful, long-term supervision.

Balancing the Relationship

Graduate supervisors constantly strive for a balance in the supervisory relationship based on a number of issues. There are many tales of mismatched expectations in this relationship. We would be hard pressed to find a "perfect" supervisory experience. "Imperfect" relationships include a student who feels that their supervisor is not as available to answer queries as s/he expects or that the supervisor is overly-directive and can't let go and allow the student to be autonomous and own their work. On the other hand issues arise such as a recalcitrant student who never seems to respond to emails and misses meetings or makes unrealistic demands on the supervisor's time. Each supervisory relationship is unique, it is a balance tailored to the goals, needs, learning approaches and approaches to work of both student and supervisor.

Approaches to Learning

Postgraduate education is a much more complex and demanding level of learning that requires the development of new and different learning strategies to be successful. Another important element of the supervisory process is to understand what your own graduate student's preferred learning, strategies and approaches are in relation to the specific learning demands of graduate education.

Learning Approaches

When we talk about 'approaches to learning' we are interpreting it to mean the mixture of approaches a learner utilizes in order to learn. While as learners we each tend to prefer one approach over another we do use a mixture of approaches, and go back and forth between approaches dependant upon the learning task at hand. Established research on student learning approaches suggests that students' learning is broadly based on three main approaches:

- surface learning;
- deep learning; and,
- strategic learning (Biggs, 1978).

The nature of postgraduate education demands that students utilize a variety of learning approaches. Dependant upon the task at hand, the particular discipline and the stage of the research, supervisors may teach in ways that encourage any or all of these approaches. Since no student has only one learning approach but rather different approaches depending on the situation, student's learning approach will also vary depending upon the learning situation and their varied approaches. It is interesting to note that researchers have discovered that students tend to use the approach to learning that their instructor uses to teaching. Teach in a deep approach and your students will tend to adopt a deep approach to their own learning; teach with a surface approach and your students will approach their learning in a surface way. (Prosser &Trigwell, 1999)

Let's examine each of the learning approaches in the context of what they mean for the graduate learner.

Surface learning occurs most often in subjects where there is a large information base. Surface learners tend to view learning as the acquisition of facts and information. They consider the stages towards the completion of a task to be distinct and disconnected.

This type of learner typically does not identify with their work, and as a result learning is based on memorization before or rather than understanding (Meyer & Shanahan, 2002; Biggs, 1978). You may see this approach to learning in your graduate student when s/he needs to gain a knowledge base such as in the literature search or data collection stage. This may be a useful strategy for a brief time early on when the goal is to examine a breadth of information, but it is not conducive to the long-term demands of graduate education.

The student who accumulates vast amounts of information or data may or may not have a difficult time organizing it, cannot develop an argument or apply it to their research question, is likely using a surface approach. This student may be well organized but struggles to connect the facts with their ideas and has difficulty linking new information and ideas with their already developed learning (Wisker, 2005).

In all disciplines there is a base of knowledge that must be learned and requires some memorization. The key is to use this information to link to the research question, synthesize and add to the evidence. This requires a *deep learning* approach, which produces better results and long-lasting learning. Deep learners attempt to see the whole problem. They are able to integrate theory, data and experience, and link new learning with established learning. This type of learning is more appropriate for graduate students as they are required to ask critical questions, problem-solve, be creative in developing new ideas and concepts as well as envision the long-term usefulness of their research findings. The following chart compares the characteristics of each approach:

Approach	Orientation	Characteristics
Surface Approach	Reproduces Information	The intention is to simply reproduce parts of the content Ideas and information accepted passively Concentrating only on what is required for assessment Not reflecting on purpose or strategies Memorizing facts and procedures routinely Failing to distinguish guiding principles or patterns
Deep Approach	Transforms Knowledge	The intention is to understand the material for oneself Vigorous and critical interaction with knowledge content Relating ideas to one's previous knowledge and experience Discovering and using organizing principles to integrate ideas Relating evidence to conclusions Examining the logic of arguments

Adapted from: Land, B. (2001). Web Extension to American Psychological Association Style (WEAPAS). http://www.beadsland.com/ARC/1996/beadsland/ROOT/weapas/html/index/

The strategic approach to learning supports, and compliments deep learning. Strategic learners focus on the end product – the successful completion of a dissertation or thesis. To accomplish this, students, in the process of constructing their own meanings, also become aware of their own thinking. This process of thinking about one's thinking is known as meta-cognition. It adds the element of reflection as it encourages an understanding of the factors that influence the way the student thinks.

The most effective learning approach for a postgraduate is a combination of deep and strategic styles. Deep learners acquire knowledge of how to acquire and manage data, information, evidence and arguments into a coherent whole while strategically analyzing and directing their research towards a timely and successful completion (Wisker, 2005).

As the supervisor, you create the conditions and the environment that encourages this deep and strategic thinking. Your teaching, guidance, mediating, and direction, is the critical link to your student's thinking and learning. This is related to your own supervisory style.

Supervisory Approaches

While graduate students need support and attention from their supervisor throughout the process the specific needs of a student change as they progress academically and the supervisory relationship develops. One of the main challenges supervisors face is knowing when to guide, direct or change their student's work and when to allow the student the autonomy to 'own' their own project. Throughout the supervisory relationship a supervisor will engage in a number of different approaches at different levels dependant upon factors including the supervisor's expectations of the student, the stage of the candidacy, the student's evolving needs, as well as the student's progress.

Gatfield (2005), has identified four preferred operating approaches to graduate supervision:

- laissez-faire;
- directorial;
- contractual; and,
- pastoral.

Supervisors may prefer one approach over another yet movement to others occurs as needed throughout the candidacy. Identifying and considering each of these is useful as it stimulates reflection on your own personal approaches. The following is an example of how each approach may be utilized throughout the process.

In the early stage of the supervisory relationship the student has a limited focus and will begin with a broad literature review in search of a thesis topic. This usually does not involve much direction or support. Considered the *laissez-faire* approach, the relationship does not involve high levels of personal interaction and the supervisor may appear to be uncaring or uninvolved (Gatfield, 2005).

Once the student finds the research subject and research questions evolve, the student requires more structure. In the *directorial* approach a supervisor provides a great deal of guidance and direction in a more regular, interactive relationship with the student. This might include assigning concrete tasks and deadlines. At this stage student motivation is typically high, so little emotional support may be needed but lots of directional guidance may keep them from "spinning" off task.

As a student becomes more familiar with their role and their work, perhaps doing data collection and analysis, a supervisor's role may shift to a *contractual* approach or consultant approach, offering suggestions and options for solving research problems. The supervisor may offer encouragement to develop communication and networking skills by providing opportunities for the student to teach, write and present. Communication will likely become more two-way, where the supervisor seeks suggestions from the student as

to how s/he should progress. The balance at this stage will be showing both direction and support. This approach is often the most demanding in terms of the supervisor's time.

As the relationship evolves and the student begins to take control over their work, the supervisor gradually encourages and expects the student to take on more responsibility and more complex challenges. The student may have less need of support yet still require structure. The supervisory approach at this point may move back to a directorial approach.

The *pastoral* approach may be utilized towards the end of the candidacy, as the student becomes comfortable with the research and the writing up. There may be a need for the supervisor to provide considerable personal care and support which serves to boost confidence and motivation, and empower the student to move from a novice to a professional. This is not a rigid model. It is intended to stimulate thinking about the different approaches to supervision and in what situations each may be applied.

Approaches to Work

Your supervisory approach also depends on your own preferred approach to work and that of each individual graduate student. Finding a satisfactory balance that works for both will be different in each supervisory relationship. Discussing with your student how you will work, both separately and together, is a useful exercise. Explaining first how you like to work with graduate students will open the dialogue to determine differences and similarities in order to reach a compromise. Issues that may be important to discuss might include these issues.

- *The best time of day to meet*: when do you both work best?
- *Scheduling meetings*: how often? who will do the scheduling? how will meetings be scheduled?; what is the process to confirm, reschedule or cancel?
- *The agenda*: who will decide the agenda; when will it be set?
- *Keeping in touch*: how often should your student check in?
- *Draft material*: how often do you expect to review written material?
- *Written feedback*: when can your student expect to have material read and returned with comments?

Co-Supervision

There is much debate around the merits and challenges of co-supervision or a supervisory panel compared to the traditional single supervisor model. Reasons to work with a co-supervisor or supervisory panel include:

- the graduate student will benefit from different perspectives and expertise;
- the supervisors benefit from sharing the responsibility, particularly if problems ever arise;
- there will always be a support for the graduate student if for some reason one co-supervisor becomes unavailable; and,
- junior academics can be initiated into good practice by experienced supervisors (Nightingale, 2005).

As with postgraduate supervision generally, there is great variation in the practice of co-supervision. As a member of a co-supervisory team there are a number of structural and organizational issues that need to

be addressed and negotiated. These issues are by no means a complete list. They are suggested as a way to begin the conversations that will determine and establish the unique relationship. These include:

- the number of co-supervisors on the team;
  - The interaction among the group becomes more complex, as the number of individuals on the team increases. There are more decisions to be made around, who assumes which roles and responsibilities.

- the skills, knowledge and experience of each supervisor;
  - It is a challenge for both student and supervisory team if the supervisors disagree with each other or provide conflicting advice. It can also be an issue if a student does not know where to turn when struggling with the research.

- the relative status of the members of the team;
  - In most institutions there is a senior or principal supervisor who accepts responsibility for the organization and coordination of the team. This person may not be the same person who provides more intellectual guidance. The parameters of the relationship between a junior and senior supervisor will need to be established.

- the ethnicity, age, and gender of the team members;
  - These factors can add to the issue of status and further complicate the relationship between co-supervisors based on cultural views and expectations.

- the physical location of each member; and,
  - A member may be in another country, at a distance or at another university. An external member may not be well-acquainted with the institution's expectations, rules or requirements, and not as available for meetings and consultation.

- the supervisory approaches of each member.
  - It can be a challenge when each member has a different approach to supervisory practice. For instance, how much interaction is expected between co-supervisors, how much interaction between each supervisor and the student, and what are each supervisor's expectations and timelines for submission and feedback on student work?

Members of a co-supervisory team are challenged with the added complexity of structural and organizational issues that require ongoing negotiation and reflection.

The goal of achieving a good match between supervisor and student becomes even more challenging in a co-supervisory model where there are three or more individuals each with a different view of the roles, responsibilities and expectations for the relationship.

The suggestions and practices described in this section apply to any and all supervisory relationships. The process of supervision, whether joint or individual is an interactive one, where the needs of student as well as the needs and expertise of the student and supervisors will change and evolve as the relationship develops (Pole, 1998). An effective, successful and enjoyable relationship between co-supervisors and student is similarly based on negotiating shared expectations, balancing the academic and personal relationships as well as managing the learning and work approaches of each member.

Supervising a Diverse Graduate Student Population

As we have been discussing, the supervision and mentoring of graduate students is challenging albeit rewarding. Successful supervision is easier to effect when the supervisor and the student share similar cultural backgrounds and social practices. Just as we recognize and attend to students' academic needs such as learning and skill sets, it is important to be aware of and address our students' diverse personal circumstances and external social factors, appreciating the extent to which these affect their graduate education experience.

Over the past few decades there has been increasing emphasis on the internationalization of higher education. There has also been an increase in the number of students (and supervisors) with diverse personal and societal factors including gender, sexuality, age, culture, race, ethnicity, family responsibility, and studying at a distance (Freckleton et al.; 2003, Wisker, 2005). The academy can no longer assume that the students and the faculty share norms, values and approaches to education. For those of us concerned with enhancing the educational experiences of graduate students, there is an urgent need to closely examine the range of and potential conflicts among these perspectives.

While each of the issues outlined in this handbook apply to all supervisor-student relationships, many of them may be intensified from diversity. There are also a number of issues that arise, dependent upon the unique personal and cultural circumstances of both supervisor and student. This section will examine the role that social identity plays exploring the ways diversity affects the supervisory relationship, illustrate the challenges and rewards, and offer practical suggestions to establish and maintain productive relationships.

Culturally Diverse Supervision

For the purpose of this section we differentiate between culturally diverse supervision and cross-cultural supervision. Culturally diverse supervision refers to supervisory relationships where supervisors and students differ on one or more cultural variables such as race, ethnicity, class, gender, sexual orientation, language, disability, and spirituality (Estrada, Frame & Williams, 2004; Toporek, Ortega-Villalobos, & Pope-Davis, 2004).

Cross-Cultural Supervision

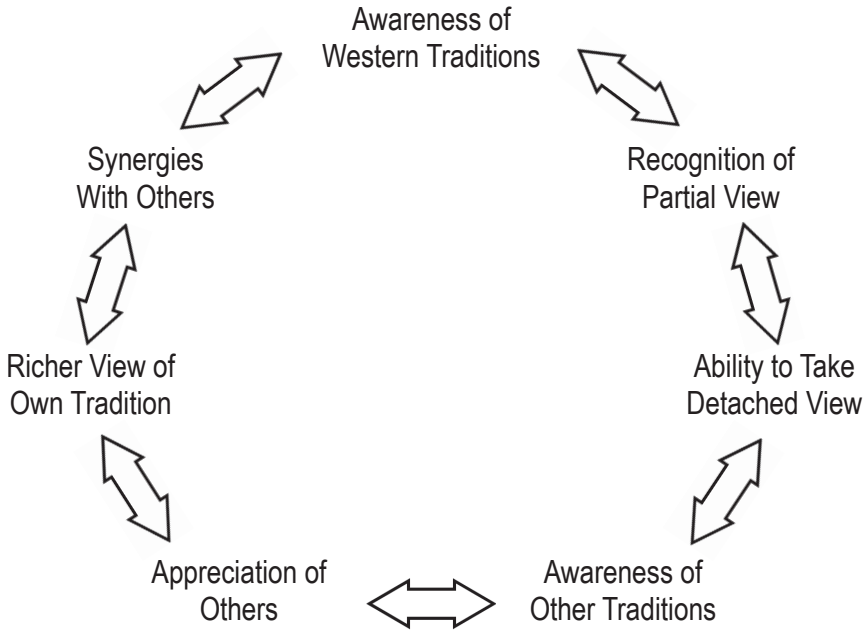
Cross-cultural supervision, in contrast, refers specifically to supervisory relationships where the supervisor and student come from different racial or ethnic backgrounds. In Canada, graduate student enrolment of racial/ethnic minorities continues to increase in number (Canadian Bureau for International Education, 2010) as do racially/ethnically diverse faculty (Pate, 2001). International students face unique challenges deriving from two sets of cultural value systems from both the students' and the supervisors' perspectives. As a result they must adapt to multiple new cultural frameworks including differences in learning, culturally-influenced ways of doing research, culturally-influenced constructions of knowledge, acculturation and deculturation.

Acculturation as a part of adapting to a new culture involves the process of acquiring a new repertoire of skills. *Deculturation* refers to the unlearning of certain elements of the student's original behavioural and cognitive repertoire (Kim, 2001). Students are faced with making choices as to which academic expectations they feel they need to adapt to and which they ignore. Consider that many expectations for scholarly behaviour in the disciplines are not made explicit and not documented as behaviours in the Student Code of Conduct would be. They will likely have to learn appropriate and inappropriate ways of behaving and communicating in Canadian culture generally. Students will need to learn these "rules" from others.

As a supervisor you can play a crucial role in this adaptation process by letting your student know which of the University's as well as the cultural expectations are negotiable and which are not. Students from non-dominant cultures often require mentoring in soft skills such as interpersonal communication skills (not interrupting when another is talking), presentation skills (engaging in academic debate) or project management (the importance of time management) (Dimitrov, 2009).

The risk of a mismatch between supervisor expectations and student intentions has a significant cultural dimension. At its extreme, a mismatch has the potential to lead students to give up their graduate studies through experiencing poor self-esteem and low satisfaction with the program. Understanding and addressing the cultural challenges supervisors and supervisees face can lead to a positive and successful experience for both. The following diagram serves as a self-development model with the goal of considering and developing awareness of other traditions.

Expanding the Horizons of Multicultural Supervisory Relationships



Adapted from Whiteley (2001)

The Culturally Diverse Supervisory Relationship

There is a norm in higher education which expects all students, regardless of their origins, studying in Canada to fit into the Canadian learning culture and cultural practices. Potential challenges for supervisors in considering good practice in creating a successful supervisory relationship cross a broad spectrum of activities. Unintended behaviours ranging from the extreme of cultural arrogance, where one assumes cultural and academic superiority in knowledge, research skill and power, to the opposite end of the spectrum where there may be a lack of attention to basic student needs such as money, food, housing, communication and technologies can arise.

An understanding of a culturally diverse student's unique situation as well as thoughtful consideration of how to help a student to meet these needs can aid in breaking down barriers which can negatively affect concentration and study. This section explores the nuances of these cultural challenges. As you will notice, the outline parallels Section II of this handbook. What is different is the added focus on practice and suggestions that specifically address the impact of cultural diversity.

What Students from Other Cultures Need in a Supervisor

There are many ways that supervisors can help students adapt to Canadian academia and Canadian culture. As supervisors we are challenged to gain cultural knowledge and consider how international students and culturally diverse students can be supported. To become culturally competent supervisors must first be aware of their own values, styles of communication, cognitive orientation, as well as emotional reactions. Even if we are limited in our own cultural understanding, many students say that an acknowledgement of cultural differences and the supervisor's attempt to increase their own understanding is more important than the degree of multicultural competence (Schroeder, Andrews & Hindes, 2009).

First and foremost, culturally diverse students need their supervisors to acknowledge and react to cultural issues in a responsive manner. A more positive working relationship is likely to develop which can begin to lay the groundwork for a strong supervisory relationship. For example, racial/ethnic minority students who may be hesitant to discuss cultural issues and differences may feel validated when the supervisor is open, interested and supportive. On the other hand, an unresponsive supervisor may negatively impact the working relationship especially if the student views these actions as a challenge to their identity.

While the list of characteristics of a "Good" Supervisor listed on page 9 applies to all supervisory relationships, there are assumptions made by both supervisor and graduate student in a culturally diverse relationship that are based on the unique cultural experiences of each. These must be identified at the very beginning of the relationship, addressed early on and readdressed throughout the relationship. For example, students from historically underrepresented groups in the university and international students can feel particularly isolated or alienated, not only from others in the university but within the larger community.

Initially, you may be the only person that your international student knows and can rely on for support and information. This applies not only to students whose first language is not English but may also include English-speaking students from other countries such as the United States. Characteristics such as being personable and supportive, having regular contact, and offering guidance may be the most important ones in your role as supervisor in the beginning. There are a number of ways to induct your student into the

university and research community. Introducing your student to relevant faculty, library staff, other graduate students, and available support services allows them to not only become more independent, but also provides them with avenues to a wider range of support and information.

> An understanding of the issues that can arise in a multi-cultural supervisory relationship can help to facilitate cutural sensitivity and awareness within the supervison, resulting in a more positive and effective relationship.
>
> Schroeder, Andrews & Hines, 2009

Developing the Culturally Diverse Relationship

It is essential to establish clear communication between supervisor and student at the beginning of the relationship. *Communication styles* can differ greatly in the mixed cultural context. Certain cultures communicate in an indirect manner. For example, Asian students may chat about unrelated matters at the beginning of a meeting to get a sense of your attitude or willingness to help them before they get to their point. Some may not actually come out and ask a clear question assuming that if you wanted to assist, for instance writing a reference letter for them, you would offer.

Another cultural challenge related to indirectness is the need for some cultures to *save face*. For instance, a Chinese graduate student may not ask a clarification question as it may suggest that they did not understand the instruction. She may go to great lengths to maintain a positive face in the eyes of her supervisor. She may also assume that asking a question suggests that the supervisor did not adequately explain the issue, which she may presume would cause her supervisor to lose face.

In Canada we typically communicate more directly. As such we may find an indirect style frustrating because we expect the speaker to clearly convey her intentions up front. There is a risk that this indirect communication style may lead a supervisor to adopt a less favourable impression of the student, possibly assuming she lacks initiative rather than appreciating that there is a difference in communication style.

Non-verbal communication, such as gestures and smiling can also be easily misunderstood. For instance, smiling and nodding can mean polite acknowledgment that someone is listening, but it could also signify agreement and understanding. It is important that meanings of non-verbal gestures particularly from a gender, race, or ethnic perspective be clearly understood and clarified early on in the relationship. How might this be accomplished? Direct, verbal communication using open-ended questions will glean clear responses that may alleviate misunderstanding.

Being cognizant of subtle cultural assumptions we may make when interacting with students is especially important early on in developing the relationship. These cultural differences can be bridged quite easily by discussing expectations and asking for clarification as well as explicitly giving your student permission to ask you for clarification.

The following are a few examples of strategies that address the issue of clarification as well as a direct-indirect communication divide.

- *Ask students specific, open-ended questions instead of yes/no questions*. Asking a student "so how can I support you in the research proposal process?" will give them the opportunity to clearly state their need.

- *Be very specific in your feedback to students, both written and verbal*. Saying to a student "it would help the reader if you started with your thesis rather than stating it at the end" is more useful than stating "the paper is vague, you need to get to the point".

- *Encourage students to give detailed explanations*. Over-explaining at first will allow both of you to become familiar with each other's communication style.

- *Observe your students' body language*. If a student responds to your question of whether she is ready to make a presentation with a long pause she may be hesitant, suggesting that she is not comfortable with doing this.

> Cross-cultural students during their first 6-12 months in the country, experience a lot of uncertainity about how to behave, and they may often lack a supportive social network to help them cope with it.
>
> Ward, Furnham & Bochner, 2001

The Academic Relationship

Students from underrepresented or marginalized groups sometimes find that their research interests do not fit into the supervisor's current academic interests. They may fear that selecting research questions focusing on race, gender or sexual orientation may lead faculty to deem their work irrelevant. A part of this challenge is that often their experiences are missing from the theory and research.

To begin to develop the academic relationship it is important to acknowledge and validate your student's prior educational, professional and cultural knowledge. This accomplishes two things; first, it encourages your student to share their differing approaches to scholarship and communication, which provides a way to begin to understand the differences that need to be addressed. Second, your interest in your student's experience can create openness and promote further dialogue about cultural differences. *Appendix D: Graduate Student Skills Inventory* and *Appendix E: A Sample of Skills Training Requirements for Research Students* may be useful tools to begin to identify the student's cultural level of expertise. Being open to hearing student's experiences and perspectives can also help to expand the types of questions asked in your discipline and the approaches used for answering them.

Authority

Students from a non-Western cultural background often express discomfort in challenging their supervisor's authority. In particular some international higher education systems respect age and experience and consider it impolite to not treat academics with very high regard. Although this may sound appealing at some level, these students find it inconceivable to enter into a debate that may threaten the supervisor's judgment and suggest student arrogance. For example, students from Asian countries often feel awkward approaching supervisors to voice their needs, concerns or opinions (Schroeder, Andrews & Hindes, 2009).

Another challenge related to authority is the case of international (or indigenous) postgraduates who are mid-career professionals. Their own status as professionals working part-time towards a graduate degree while holding important jobs suggests that issues related to hierarchy and pride coupled with part-time study may influence the supervisory relationship. This situation can be further exacerbated by cultural differences and studying at a distance. All research students benefit from support and clarification in terms of expectations. A complex relationship such as this may require more negotiation and clarification. *Appendix G: Reflective Questions for Supervisors of Culturally Diverse Students* lists a number of questions for supervisors to consider.

Issues of Gender and Sexual Orientation

Whether you are male, female, or transgendered, if you are engaged in a cross-gender supervisory relationship there will inevitably be differences in the way you relate to candidates as compared to a relationship where the student is the same gender as you. This can become even more complex if faculty engage in stereotypical gendered behaviour. We know that in academia there is a tendency for networks of similar people to form. The "old boys' network" is one of many subgroups in the academy. The challenge is to consider your own actions as a supervisor to ensure that one student is not getting more or better support than another. For instance, an academic setting that is mainly male can be a difficult place for a female. The men may meet socially and talk shop but they hesitate to invite her. They may be so careful to avoid sexism that they constantly remind her of her difference. It is possible that there are also female-dominated settings where men feel similarly excluded or different. Sexist behaviour whether unintentional or malicious can be discriminatory (Nightingale, 2001).

In order to create a collaborative working relationship it is important to be aware of and avoid stereotypical gendered behaviour, keeping in mind that different cultures have different approaches to gender equality especially in relation to overt power relationships such as student-professor. The following are suggestions which may be helpful and spark awareness about your own approaches to working with culturally diverse students.

- Be aware of burdening one student to be a spokesperson for an entire group. Instead, ask for their perspective.

- Be aware of the often unconscious assumption that the "white, male" experience is the norm. Consider that gender (as well as race, class, ability, and sexual orientation) influence, but do not predetermine a student's perspective.

- Be aware of another often unconscious assumption that everyone is heterosexual. Often LGBTQ students find their experiences and perspectives are missing in research or discussions. This can

lead to feelings of isolation or feeling “invisible”. Use inclusive language, such as “partner” rather than “husband” or “wife”.

- Be aware of stereotyping particular behaviours based on gender. Assertiveness, often considered a sign of success in graduate education has traditionally been considered a positive trait for males and a negative trait for females. Acknowledge multiple forms of participation and engagement.

- Be aware that supervising is more effective when there is sensitivity towards issues of gender and sexual orientation.

Issues of Age and Experience

Older students are often more focused and aware of their educational goals than their younger colleagues. Maturity and experience are assets in a number of ways. Mature students are often familiar with and experienced in solving complex problems, are independent and critical thinkers and are often not intimidated by the prospect of engaging in discussions with you. Many also have family and work obligations which can conflict with their graduate education but also strengthens their time management skills.

Balancing Work and Diverse Lifestyles

As the graduate student population grows and increases in age so do students’ family responsibilities, dual commitments and time constraints. For many students feelings of isolation can arise. Mature students particularly may find it difficult to be a part of “academia” in terms of attending events, functions, study groups and socializing with other academics. Many are challenged with balancing academic success with these other responsibilities.

Graduate students observe successful faculty devoting large amounts of time to their academic work. This may cause them concern, worrying that supervisors may misconstrue their attention to other responsibilities as a lack of commitment to graduate work. Adding to this complexity, cultural beliefs and practices also influence how students deal with family responsibilities. Family emergencies or child care, for instance, can exacerbate this perception.

There are a number of approaches that you can use to support graduate students who are experiencing issues with age, and balancing work and lifestyle.

- Understand that graduate students’ aspirations and interests vary.

- Get to know your student’s career aspirations and how graduate education will help them achieve their goals, realizing that these aspirations may shift over their time in graduate school.

- Value your student’s knowledge and experience by asking them how these inform their graduate scholarship.

- Recognize that students work hard to balance education, work, home and lifestyle.

- Develop accommodations such as advance assignments.
- Plan departmental family-friendly events.

Encouraging students to find a balance between spending time with students who have a similar background and students with different cultural experiences as well as other faculty will give them an opportunity to successfully learn and adapt to graduate school and their department.

Disability

For graduate students with disabilities meeting course requirements may demand more time and energy than it does for other students. Students may have physical disabilities, learning disabilities (Attention Deficit/ Hyperactivity Disorder, and dyslexia), chronic disabilities (lupus and multiple sclerosis) and psychological disabilities (depression and bipolar disorder). Some may be reluctant to ask for support for fear of seeming too dependent, incompetent or unable to complete their degree. As in any supervisory relationship, creating an open environment early on can help a student feel comfortable in sharing sensitive issues that may affect their graduate studies.

Working collaboratively with students and the Centre for Student Development can help ensure that you are meeting your student's needs. There are a number of available supports including auxiliary aids, academic adjustments and help in determining ways to meet disability-related needs. For example, a student with multiple sclerosis may be able to study only a certain number of hours in a day before fatigue, vision problems and cognitive deficits flare (University of Washington Graduate School website accessed July 18, 2011. http://www.grad.washington.edu/mentoring/).

Working with your student to determine their most productive times and setting meetings and deadlines around these times can greatly support not only their progress in the program but their self-esteem as well. Some students may not be able to participate in professional activities such as submitting papers to conferences because they need to devote their time and energy to meet the demands of the program or because their physical limitation makes conference attendance too difficult. Determining what adjustments need to occur and planning creative solutions can ensure that your student fully participates in the program. For example, could your student with mobility impairment participate in a conference where s/he could present a paper online?

Language

For cross-cultural students it is important to identify and address any language support needs early in the supervisory relationship. This will allow for sufficient time and opportunity for improvement. Most universities offer English as a Second Language (ESL) support services. Students from English-speaking countries typically have an easier time adjusting to North American culture compared to those from non-English speaking areas in Asia, Africa and South America (Nilsson & Dodds, 2006).

International students will have proven their English language skills in a standardized test as part of the application process. However, while these language skills may be sufficient for day-to-day conversation, this may not be so for academic writing. It should be remembered that fluency in English is not the same as using English in the Canadian academic tradition. Idioms, use of tense and colloquial expression are learned in a cultural context. As a result, students who come to you fluent in English may still need special attention to their academic writing skills.

The role of the supervisor as editor of their graduate student's writing, regardless of cultural background is becoming more of a concern for faculty. Based on their previous educational experience, culturally diverse students may expect you to edit their writing or may view your critique of their writing as an attack on their culture. University writing services may be particularly helpful to these students. Remember that you are not alone in helping your student.

It is important to remember that even if students manage well in English there are subtleties in connotation of abstract words which are difficult to translate into experience. Talking about anything personal, such as discussing your supervisory relationship can be particularly difficult (Nightingale, 2001).

The Personal Relationship

Research suggests that supervisors typically focus on basic skills at the beginning of the supervision and consider diversity issues later on (Schroeder, Andrews & Hindes, 2009). While personalities will still figure prominently as they do in any supervisory relationship, in the culturally diverse supervisory relationship cultural issues and differences must be identified, considered and addressed up front.

As we discussed in Section II, the progress of a student is greatly affected by the nature of the relationship. The differing views on what the nature of that personal relationship should be, becomes even more complex in a culturally diverse relationship. Hockey (1996) states that supervisory relationships fall into three main categories.

1. *Informal relationship*, where the notion of a contractual agreement and trust are of equal importance;

2. *Comradeship*, where trust is more important than the contract; and

3. *Formal relationship*, where the contract becomes more important than trust.

What is interesting is that in North America we are among only a few cultures in the world that creates clear boundaries between our personal and professional lives. Compared to other cultures, such as European and Asian cultures where work relationships and friendships tend to overlap more frequently. Supervisory relationships in Canada tend to fall more often into the formal or professional category and sometimes in the more informal sense where both trust and contractual agreement are equally important, rather than one of comraderie. (Kim, 2001).

Although the following categories are cultural generalizations, and do not apply to all students, they are informative in terms of highlighting cross-cultural trends that can vary between relationship oriented cultures and task oriented cultures.

Culture	Typology	Perspective
North America	Formal/Informal	Boundaries between personal and professional
Northern European	Formal/Informal	Boundaries between personal and professional
Southern European	Comradeship	Close and personal
Asian	Comradeship	Close and personal; fewer boundaries between personal and professional
African	Comradeship	"duty to take care of students"; "extended family members"
Central America/Mexico	Comradeship	Close and personal; spend time together after class

(Eland, 2001)

Negotiating Shared Expectations

As we have been discussing, clear and frequent communication, the key element of successful graduate supervision, can be particularly challenging in a culturally diverse relationship. There is more risk of mismatched expectations as a result of cultural and experiential differences. International students may be unfamiliar with culture-specific conventions for disagreeing, or negotiating. As a result they may appear to be unresponsive, rude or avoid challenging situations altogether. Thus it is extremely important for you as the supervisor to initiate conversations about expectations, ensuring that your student feels comfortable in engaging in discussion and negotiation.

Power and Privilege

Issues of power and privilege are also more pronounced in a culturally diverse relationship. The traditional stereotype and power imbalance of graduate supervision can be especially challenging with culturally diverse students. For example, students with low levels of acculturation may give their supervisor even more power and authority in the relationship based on the perception the student has of the role the supervisor should play.

Consider where this stereotype comes from. The language of supervisor/student, the implied power relationship in policy and procedure reports, examination by noted experts and advice from other students

not to question their supervisor's orders are all cues that are picked up by culturally diverse students who know they have to adjust to new ways of doing things (Nightingale, 2001). Even if you tell your student that you want the relationship to be that of colleagues, albeit with power differences, the system is telling them that there is a power imbalance.

Explaining your expectations of the boundaries of the relationship between the professional and the personal can open the dialogue for you to understand any cultural differences that may be at play. Completing *Appendix F: Exploring the Expectations of the Supervisor and Graduate Student*, can provide you with a starting point. It can be revisited throughout the relationship to renegotiate and clarify the relationship.

> Sensitive issues are best addressed in face-to-face meetings rather than by email or telephone. This way the supervisor can clarify misunderstandings on the spot and provide emotional support if necessary.
>
> Australian Learning & Teaching Council, 2011

Balancing the Culturally Diverse Relationship

Articulating and sharing ideas and work-in-progress can help to build your student's confidence throughout the relationship. Once a student finds the courage and confidence to express their own ideas and opinions and even engage in debate they may need help in doing so (Wisker, 2005). Strategies that can help include:

- allowing students time to express themselves;
- making an opening for them to join a discussion or respond to it;
- supporting and encouraging their contributions; and
- alerting them to any cultural differences, suggesting more suitable behaviour for the situation.

Culturally Diverse Teaching and Learning Approaches

Recognizing culturally different learning approaches can help in developing supportive practices. A risk here is ensuring that any suggestions of development are not based only on a different cultural context rather than it being related to doing effective research. Studies suggest that many cross-cultural students are aware of different types of learning activities and learning demands in their new environment, yet a lack of prior experience in doing these activities can hinder their learning (Wisker, 2005). For example, the concept of a tutorial, or group discussion, may be foreign to their learning experience. Group discussion and the ability to engage in debate and arguing points of view are critical skills for undertaking graduate research. Developing these skills may be a particular challenge for students if their level of creativity and

argument required to be successful is lacking and if their educational background lacks experience in this form of education.

While working to develop more appropriate research methods and skills early on is essential for success, it will be more successful if these developments come through the work itself and be owned and understood by the student rather than the student feeling that the methods and ideas are imposed upon them.

In terms of approaches to learning, some culturally diverse students have been trained in education systems where the view of knowledge construction is based on accumulating, conserving and reproducing knowledge – in essence taking a surface and/or strategic approach to learning.

In contrast, in North America the approach to knowledge construction is a meaning-oriented one with the expectation of questioning, problem-solving and creativity – a deep learning approach, with an outcome that is transformational (Wisker, 2005). Working with students to identify and understand this mismatch can help to alleviate some of the difficulties they may experience as well as encouraging them to develop more appropriate methods for success early on in the supervisory relationship.

References on Cultural Diversity

Dimitrov, N. (2009). Western Guide to Mentoring Graduate Students across Cultures. Teaching Support Centre Purple Guide. *www.uwo.ca/tsc*.

Freckleton, L., Creighton, E., and Wisker, G. (2003). Internationalisation of the curriculum and employability. World Views: The Magazine for UKCOSA Members 11, 10-12.

Hammer, M. (2005). The Intercultural Conflict Style Inventory: A conceptual framework and measure of intercultural conflict resolution approaches. International Journal of Intercultural Relations 29 (6), 675-695.

Hockey, (1996). Contractual Solutions to Problems in the Supervision of PhD degrees in the U.K. Studies in Higher Education 21(3), 359-371.

Kim, E.Y. (2001). The Yin and Yang of American Culture. Yarmouth, ME: Intercultural Press.

Laroche, L. (2003). Managing Cultural Diversity in Technical Professions. New York: Butterworth-Heinemann.

Pate, W.E. (2001, April). Analyses of data from graduate study in psychology: 1999-2000. Retrieved July 18, 2011, from *http://www.apa.org/workforce/publications/grad-00/index.aspx*.

Slaney, K. (1999). Models of supervision for enhancing the English language communication skills of postgraduate students, in M. Kiley and G. Mullins (eds), Quality in Postgraduate Research: Making Ends Meet. Adelaide: Advisory Centre for University Education, University of Adelaide.

Ting-Toomey, S. and Oetzel, J.G. (2001). Managing intercultural conflict effectively. Thousand Oaks, CA: Sage.

University of Washington Graduate School website. Retrieved July 18, 2011, from *http://www.grad.washington.edu/mentoring/*.

Ward, C., S. Bochner and A. Furnham (2001). The Psychology of Culture Shock. 2nd ed. Philadelphia: Routledge.

Whiteley, A.M. (2001). Preparing the Supervisor and Student for Cross Cultural Supervision. International Journal of Organisational Behaviour 7(6), 422-430.

Wisker, G. (2005). The Good Supervisor: Supervising Postgraduate and Undergraduate Research for Doctoral Theses and Dissertations. New York, Palgrave MacMillan.

Wisker, G., Robinson, G. & M. Shacham. (2007). "Postgraduate research success: communities of practice involving cohorts, guardian supervisors and online communities". Innovations in Education and Teaching International 44 (3) 301-320.

Zuber-Skerritt, O. (2002). Supervising Postgraduate Students from Non-English-Speaking Backgrounds. Buckingham: Open University Press.

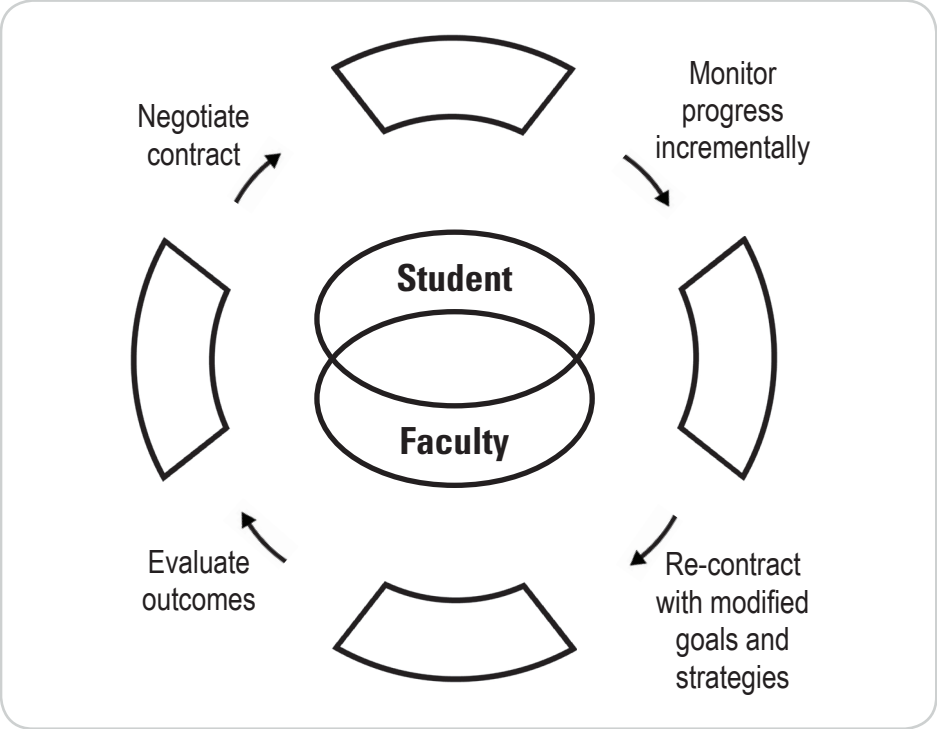
Managing the Project to Successful Completion

Managing Student Progress

Good supervision, like many human undertakings, is both a science and an art. In addition to the content reflected in contracts with students, there are pedagogical strategies - skills and techniques - which can be brought to bear by the supervisor. Reflecting on the practice of supervision, documentation, feedback, and problem solving rank high on the list of these skills.

Reflecting on Practice

We suggested previously that supervision needs to be structured, contracted, monitored, and evaluated in an ongoing manner. Like all good practice, reflection on progression is important for all of the participants.



It should be part of every contract between a supervisor and student to review progress on a regular basis and to agree upon the points at which the contract itself will be adjusted to reflect the student's progress. The agreement to review progress can become the driver as you move forward; getting "stuck in the loop", reviewing and re-shaping in the absence of changing the contract, can leave the supervisor and student stuck "spinning their wheels". One part of the "art of supervision" is in knowing when to push for change and when to leave the student to find a way forward; in either circumstance, the challenge required is to ensure that progress is occurring. The addition of timeframes to the contract can help you, as a supervisor, to determine if time-linked goals are being met and determine whether genuine progress is being made. One approach is to monitor skill development. This can also help your student to anticipate workload, feedback points, and what skill acquisition is required at each stage of the work (See *Appendix E: A Sample of Skills Training Requirements for Research Students*).

There is a delicate balance to be sought between the pursuit of intellectual curiosity and fulfilling the degree requirements. It is easy for either party to lose site of these dual goals. When a student's research is intertwined with the research of the faculty member, time constraints may become even more important. Faculty research obligations related to grant or contract completion deadlines must be part of the consideration in contracting with students.

Similarly, students may be facing external deadlines such as the end of scholarships or meeting a return to work commitment. These deadlines need to be factored into the contract from the beginning (or once known).

For both supervisor and student, universities set the timeframe boundaries. It is critical that neither student nor supervisor be surprised by university deadlines. In most institutions, deadlines are not suggestions, they are limits and exceeding the limits comes with significant penalties borne mainly by the student. Therefore, often a good opening question when creating a working timeline is "When do we need to be sure to have everything finished?" (Tip: Take that date back at least one month to allow time for the ever present, and often unexpected, paperwork!)

Although academics often complain about the demands placed on them by graduate supervision, there is no doubt that having a good student want to work with you is flattering. Similarly, good students are gratified by having a professor whom they respect agree to take on a supervisory role. Supervision can become a bit of a mutual admiration society when times are good – that is when the student is motivated, agreeable, works hard, meets deadlines, and is producing quality work and the supervisor is readily available, interested, careful with praise, and tactful with critique. Under these conditions, it is understandable that supervisors seek to re-create themselves and students emulate the supervisor. An important part of the reflection process is to periodically stop and consider whether this dynamic has become part of the supervisory relationship and, if so, is that where you want it to be headed.

Documentation

"I thought that we had an understanding" are the famous last words of a supervisory relationship gone amuck. Misunderstandings, missed deadlines, missed meetings, unnecessary wheel spinning, and a real sense of both frustration and helplessness on the part of both supervisor and student can be avoided if progress is consistently documented.

"Oh no! Not more forms", the chorus screams. The advantages of structured documentation (a.k.a. forms) for supervision activities is that expectations are made clear, deadlines are written down, decisions and commitments are recorded, and all of this is available for review by supervisors, students, and appeal boards. Documentation, in whatever form, requires some up front time commitment to prepare but we suggest will avoid hours of unproductive and frustrating disagreement and even appeal processes.

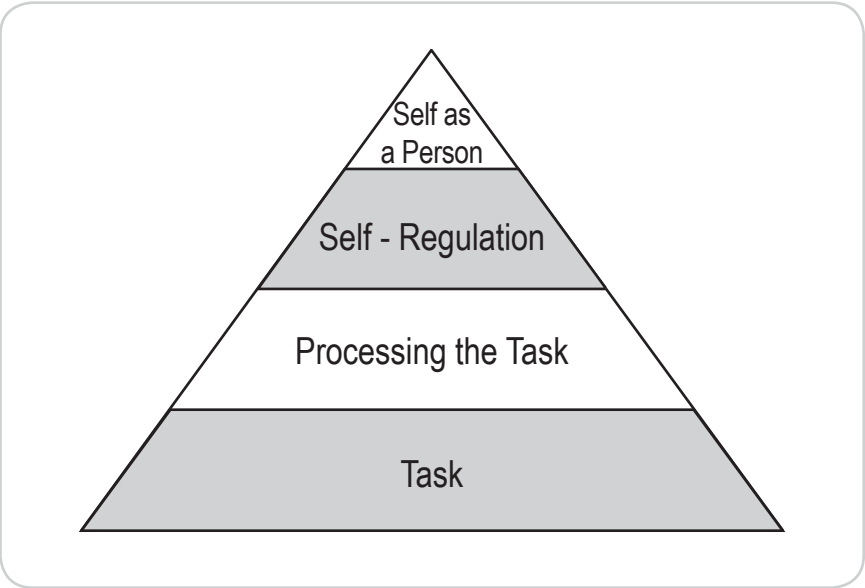
We have provided a basic sample sheet that would allow both supervisors and students to record decisions made in supervisory meetings (*Appendix H: Meeting Documentation Form*). It could provide an historic record of the progression of the student's research and be used as a tool for reviewing this progress, avoiding the repetition of mistakes, and reinforcing strategies which have been particularly successful. In the moments when progress seems elusive, this documentation is also a good source of reassurance for both you and your student that change is occurring in a positive way. It may also serve as a reality check which identifies a pattern of non-productive busy work.

Feedback

One of the major techniques used in supervision is feedback. Feedback is, by definition, "the process in which part of the output of a system is returned to its input in order to regulate its further output" (http://wordnetweb.princeton.edu/perl/). Feedback is a circular process which requires that both the supervisor and the student give and receive information. Educational psychologist, Benjamin Bloom (1971) described two types of feedback – formative and summative.

Formative feedback can be described as an assessment of learning while summative feedback is an assessment on learning (Bloom, 1971). While both are an integral part of learning, formative feedback is pivotal to the process of mastery of a subject. The purpose of formative assessment for the supervisor is to design instruction with the purpose of providing crucial feedback. The purpose of formative feedback for the student is to learn, reflect and improve. Summative feedback is the assessment at the end of the programme. In the context of a graduate program it refers to the final research project, dissertation and defense.

Hattie and Timperley (2007) distinguish four levels of feedback. These levels can be considered a part of the ongoing formative feedback process.



(Adapted from: Hattie, J. & Timperley, H. (2007). The Power of Feedback. *Review of Educational Research* 77(1): 86-87).

Feedback about the task includes information about errors, the depth or quality of the work, the need for more information, and the format of materials presented. In contrast, feedback about the process provides information about the approach to the task, and about possible alternative strategies. Feedback about self-regulation is effective if it enhances the self-efficacy of the student as a learner.

It is often assumed that by the time a student is admitted to graduate studies, they have achieved a high degree of self-efficacy. You may not find this to be the case. Students may have excelled in highly struc-

tured and controlled environments with little self direction. Research supervision in such cases is a fundamental education in how to learn and how to appreciate your own academic accomplishments.

Finally, feedback about the self as a person is a quagmire in supervision. Supervisors must be careful to comment only on academic performance and not on personality. In simple terms, you can but at your peril. For example, the student who repeatedly submits work late may indeed be a procrastinator. You as a supervisor might be wise to point out to the student that s/he is consistently late and that you find that behaviour unacceptable because it violates your contract with the student and inconveniences you. Whether or not the student has the personality trait of procrastination belongs outside the supervisory role and is a judgment about the person and not their academic work.

Clinical supervisors may find this point particularly problematic. The personal characteristics that individuals bring to practice can be either their great strength or vulnerability. It is only to the degree that these personal characteristics interfere with performance on the job that a clinical supervisor has responsibility to provide feedback.

For the supervisor, the intention of formative feedback is to critically evaluate the student's work in relation to their learning goals and to make observations about the student's learning progress, supporting improvement in their work. Finally, it is to develop student self-efficacy. For the student, feedback should describe the progress that has or has not been made toward the mutually agreed upon learning goals. Students have no obligation to increase the self-efficacy of the supervisor; they do have an obligation to describe the ways in which the supervisor is being helpful or not helpful to the student in achieving the student's goal. This constitutes the feedback from the student to the supervisor.

Feedback can be both oral and written, and can take on a number of forms – formal meetings, chats in the lab, over lunch, email, telephone, and fax. This is an individual decision based on the circumstances (distance, part-time student) and the relationship that has developed (James & Baldwin, 1999).

Feedback is a powerful tool for a supervisor. Part of what keeps students motivated is critical, yet supportive feedback from their supervisor. Good practice suggests that feedback not give an answer, but nudge, and incite in the student a sense of direction and enthusiasm for further exploration. Students may be sensitive about their developing work and react adversely to negatively presented feedback that does not clearly identify problem areas and offer suggestions for improvement.

Critical, objective feedback whether formative or summative, should be presented in a generalized and positive tone. Negatively presented feedback only serves to demoralize, deflate confidence and leaves students unsure as to their next steps.

Facing the Challenges - Solving the Problems

Every supervisor will find unique challenges in the supervisory relationship. Briefly we are going to touch on seven common issues which you may encounter – academic roadblocks, the student with personal challenges, ethics in the field, student motivation, loosing interest, disagreement, and finishing on time. These areas do not make up a comprehensive list nor are they exclusive to graduate supervision. They are offered as examples of barriers to an effective and satisfying supervisory relationship.

Academic Challenges

- Academic roadblocks
- Personal challenges
- Ethics
- Student motivation
- Losing interest
- Disagreement
- Finishing on time

Academic roadblocks include issues such as poor writing skills, lack of conceptual preparation, poor command of English, and poor analytic skills. These roadblocks often are best addressed with outside resources. Additional courses, writing clinics, and ESL courses may bolster the student's ability. No supervisor should see the student's shortcomings as exclusively the supervisor's problem. If you are left wondering how your student graduated from an undergraduate program, perhaps you should consider these external institutional resources; the institution admitted the student, not you. Having done so, the institution bears some responsibility for contributing to his/her success.

International students who come to study from a country in which English is not their first language may have particular difficulties in either understanding the sophisticated language and dense text required at the graduate level. They may have equal difficulty expressing complex and nuanced ideas in English. Your job as a supervisor is not to be their editor; it is to guide them to appropriate resources to develop these skills (e.g., ESL courses).

Personal challenges include life events such as illness, marital breakdown, child care, parental care, financial problems, and career doubts that constantly occur during graduate studies. Most students have stretched their personal resources, physical, financial, social, and emotional to the limit by the time they reach graduate school. Mature students, international students, and students with an undergraduate history of stressful life circumstances may be at particular risk. Again, supervisors should consider outside resources to assist these students. All universities have financial aid service offices, mental health services, career counselling, and pastoral counselling available. It is easy to forget that students are also citizens and can make use of a full range of community services while they are in school. Share the load; if you can, help the student to find an appropriate outside resource. Many of the challenges faced by graduate students will ring true in your own life as a supervisor. There is a real danger that you will be drawn into trying to find a solution. Usually these challenges are outside of your area of expertise. A supervisor should be cautious about crossing the boundaries of the supervisor-student relationship by trying to fix the problem for or with the student. Use outside resources both to help the student and to keep your supervisory relationship intact.

Ethics in the Field

Ethics in the field covers a broad area of behaviour that exceeds the boundaries of ethics review committees. Issues usually center on the behaviour of students towards research participants. Lateness, not showing up for a meeting, misleading subjects, and becoming involved in a social, rather than professional, relationship with participants are not uncommon. Often clinical supervisors are more attuned to these issues but they may be missed by research supervisors who do not make such a concerted effort to watch for such missteps. Once identified, this type of situation must be addressed promptly and directly by the supervisor. Outside help in doing so may also be useful.

It is worth repeating that the intensity of the relationship between students and supervisors may also lead to the development of an inappropriate relationship between them. It is never appropriate to have a sexual relationship between a supervisor and a student. It is never appropriate to exploit the power imbalance between a supervisor and a student. In both instances the supervisor has breached the ethical boundaries of the relationship and the consequences for both the supervisor and the student are likely to be devastating. Regretfully these breeches are not uncommon in the academy.

Student Motivation

Student motivation ebbs and flows during the course of the research enterprise. Students need to understand that this is a common reaction to the graduate experience. Research never runs smoothly and we as supervisors and the institution itself have often presented a fictional representation of the research process to students. We require that they write rational, linear explanations of their complicated and often circular research enterprises; we discourage the reporting of "failed" studies – studies in which there are negative or inconclusive results; we talk in code – "publish your findings" is a phrase that obscures the difficult, time consuming, often frustrating process of shaping and writing about the results of the long hours of toil in the field; publisher's rejection letters are more common than acceptances. Like all of us, students need to recognize and celebrate not only their large but also their small accomplishments. A supervisor can play a key role in keeping a student motivated.

James & Baldwin (1999) suggest a number of practices a supervisor can adopt to inspire and maintain their student's motivation.

- Affirm and reaffirm the importance of the student's work – it is exciting when a student sees the value in their work, contributing to their motivation to continue.
- Engage with your student's ideas and arguments – this not only signals your interest in the work, it facilitates an intellectual climate for the research.
- Acknowledgement and reassurance - student motivation ebbs and flows throughout the research process. Reminding your student why s/he is undertaking this project and of their personal and career goals may stimulate their motivation.
- Arrange opportunities for your student - communicating their ideas through seminars, conferences and symposia can support morale and offer another forum to engage in scholarly discussion and debate.

Losing Interest

Losing interest could be subtitled 'the unmotivated supervisor'. Just as students can become weary on the long research journey, supervisors can also run out of steam. Too many students, multiple challenges with any one student, personal challenges in one's own life, multiple and complex demands from your own research, teaching, and administrative responsibilities may lead to a kind of "burnout" which is experienced as a lack of interest in how your graduate student is doing.

Conflict

The potential for disagreement between supervisor and student may increase the further along the student is in the research. The supervisory relationship is unique in that the student is supposed to become more expert in their research than the supervisor. What do you do if you disagree with your student's methodology, analysis or interpretation? We discussed earlier the importance of clear and frequent communication. Hopefully intellectual discussions have been a part of that communication and there is a level of understanding between you. You must first determine whether it is necessary for you to agree. You may feel that you do not need to agree as long as the thesis is logical and the conclusions drawn from the data are valid (Nightingale, 2005).

If you feel that a certain level of agreement must be reached, differences of opinion should be carefully managed because of the power imbalance in the relationship. While your student is becoming an expert in their own research, there is a difference in the level of research experience between you. It is your responsibility as a supervisor to mentor, guide, and advise based largely on your experience as a researcher. If you are uncomfortable with the disagreement you could seek others' opinions in your department.

All endeavor calls for the ability to tramp the last mile, shape the last plan, endure the last hours toil. The fight to the finish spirit is the one... characteristic we must possess if we are to face the future as finishers.

Henry David Thoreau

Finishing on Time

Graduate students can encounter difficulties and problems in all aspects of their research as well as their personal lives. The reasons for late completion or non-completion of a graduate program typically lay in a combination of challenges or difficulties rather than a single factor. The overarching factors are related to the academic experience and the existing skills of both supervisor and student. There are a number of common, practical factors that interfere with a student's completion. These include but are not limited to the following:

- poor planning and management of the project;
- methodological difficulties in the research;
- the writing of the research;
- isolation;
- personal problems; and,
- inadequate or negligent supervision.

A graduate program requires students to undertake many different types of tasks that call for a range of different skills at different times throughout the process. Students may not have developed all of the necessary skill sets in their undergraduate studies. Certain skill sets such as research design, time management, interpreting results or writing may not be required until further along in the process so neither of you may be aware that your student has difficulty with a particular skill set until s/he is faced with challenges.

Warning signs of a student who may be at risk

- Postponing supervision meetings
- Making excuses for unfinished work
- Focusing on next stages rather than the current task
- Uncertainty or frequent changes in research topic or method
- Spending time on things other than graduate work
- Resisting advice or criticism
- Procrastination
- Intellectualizing practical problems
- Blaming others for shortcomings
- Failing to integrate earlier work

Brown, G. & Atkins, M. (1988). Effective Teaching in Higher Education. Methuen & Co. Ltd.: New York.

If you notice any of these issues occurring with a student, a consideration of the following questions may serve as a way to identify and address the heart of the issue(s).

- Can your student clearly state the central issue being investigated?
- Does the study require your student to use techniques that s/he has not used before?
- Is your student well-suited to the type of research s/he has chosen?
- Are there particular challenges in your student's personal life that may interfere with their progress?
- Is your student on schedule?
- Is it evident that your student possesses the required academic skills (e.g., writing skills)?

Although a lack of certain skills can be a serious problem for many graduate students and their supervisors, these are problems which can be resolved. Clearly, the best plan of action is early communication and organization of the process so you can be aware of potential issues. The practices outlined in Section II will support you in establishing a successful plan of action. If the identified issue is not something that you feel you can address, seeking out and utilizing the appropriate institutional services, community services and/or support systems, may be just what is needed to get back on the right track.

As we have discussed throughout this guidebook, there are many things supervisors can do to support and strive to ensure the success and timely completion of their graduate student. The pivotal role of the supervisor is to lay the foundation for a good relationship to develop, based on effective communication, clearly defined roles and responsibilities, shared expectations, concern for a student's personal well-being, flexibility throughout the process, and reflection on practice.

"Better than a thousand days of diligent study is one day with a great teacher".

Japanese Proverb

Appendix A

Eleven Practices of Effective Postgraduate Supervisors

Effective supervisors…

Foundations:

1. Ensure the partnership is right for the project.
2. Get to know students and carefully assess their needs.
3. Establish reasonable, agreed upon expectations.
4. Work with students to establish a strong conceptual structure and research plan.

Momentum:

5. Encourage students to write early and often.
6. Initiate regular contact and provide high quality feedback.
7. Get students involved in the life of the department.
8. Inspire and motivate.
9. Help if academic and personal crises crop up.

Final Stages:

10. Take an active interest in students' future careers.
11. Carefully monitor the final production and presentation of the research.

Adapted from: James, Richard 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, Parkville, Victoria 3052 Australia.

Appendix B

Ten Questions to Ask BEFORE You Take on Graduate Student Supervision

1. In which areas do I have confidence to supervise?

2. Does my own research programme need postgraduates? For how many students are there topics of enough scope? How much time do I have available to supervise students?

3. What is my philosophy concerning higher degree studies? Do I feel responsible for all aspects of the students work and do I need to keep direction or control? Or do I feel that students should plan on their own and only come to me for advice?

4. What is the student's past record? Does it show signs of undue dependency? Or, is there an indication of an ability to work independently?

5. Does the student have the prerequisite knowledge to work in one of my areas of interest?

6. Does the student have theoretical and philosophical assumptions similar to my own? If not, will I be able to be "objective" in advising the student?

7. Does the student have appropriate research skills? If not, am I able to provide those skills?

8. Do I have the necessary knowledge to supervise the student in the area chosen?

9. Are my own research skills broad and up-to-date enough to supervise effectively?

10. Are adequate resources available?

If your answers to questions 1 to 10 have left you unsure of whether you should take on a candidate, discuss the implication with your head of Department/school and with the prospective postgraduate.

Adapted from: Nightingale, P. Advising PhD Candidates.
Milperra, NSW: HERDSA, 2005, pp. 6-7.

Appendix C

A Checklist of Critical Things You Need to Know as a Supervisor at Your Institution

Can you answer questions about practices at your university?

(Don't assume all universities are the same!)

- ❑ Exactly what are the requirements for admission to a graduate program? Is there any flexibility?
- ❑ What are the administrative procedures for admitting candidates?
- ❑ Is there a required induction programme for candidates?
- ❑ Is there an induction programme for inexperienced graduate advisers?
- ❑ When does a candidate select a topic?
- ❑ When and how is an adviser appointed?
- ❑ Who are the people responsible for research postgraduates – both academics and administrators? The Dean of Graduate Studies? Who at the Faculty or departmental level?
- ❑ What is the role of the university's research officer? Is there a legal officer to help with intellectual property questions and the like?
- ❑ What published documents exist including rules, charters, and guidelines? Where are they – the Internet, calendar, postgraduate office? What documents is the candidate given and when?
- ❑ What reporting requirements exist for the candidate's progress – confirmation of candidature, formal proposal review, annual reports, examination, presentation, and so forth?
- ❑ What provisions exist for interdisciplinary supervision?
- ❑ What provisions exist for collaboration with advisers outside the University?
- ❑ Can the thesis be a collection of publications? What provisions are there for non-traditional thesis presentation including media other than print?
- ❑ What support services exist for candidates including thesis writing, statistics, overseas candidates relocation, library, information technology, counselling, and assistance for candidates from non-English speaking backgrounds?
- ❑ How are examiners appointed? What is your role? Are any criteria for appointment specified?

- ❑ How is the examination process handled? What are the processes for administrative procedures, reviewing reports, and deciding the outcome?

- ❑ Is an oral examination possible, encouraged, or required? How is this organized?

- ❑ What appeals or conflict resolution procedures are available to candidates at different stages in case of difficulties?

- ❑ What institutional support is available to you including staff development programs, postgraduate liaison officers, and support for attending conferences on postgraduate issues?

- ❑ Are there extra listed workload expectations for supervision in your institution which stipulate maximum number of concurrent candidates and/or a number of hours per year allocated to supervision?

- ❑ What are the best resources for students in your discipline including books and websites on research methods, thesis writing, and coping with Ph.D. study?

- ❑ Is there a process for you and the candidate to collect feedback on the advising process?

- ❑ If either you or the candidate believes that the supervision relationship is in difficulty with whom do you discuss alternatives?

Adapted from: Nightingale, P. Advising PhD Candidates.
Milperra, NSW: HERDSA, 2005, pp. 61-62.

Appendix D

Graduate Student Skills Inventory

1 = new to develop, 2 = some skill, 3 = quite confident, 4 = confident, 5 = a strength of mine

1. Turning a research topic into a research question, which addresses a gap in knowledge.	1	2	3	4	5
2. Project planning.	1	2	3	4	5
3. Time management.	1	2	3	4	5
4. Knowledge and retrieval.	1	2	3	4	5
5. Knowledge management.	1	2	3	4	5
6. Bench skills.	1	2	3	4	5
7. Fieldwork skills.	1	2	3	4	5
8. Analytical skills.	1	2	3	4	5
9. Critical skills.	1	2	3	4	5
10. Calculation skills.	1	2	3	4	5
11. Interpretation skills.	1	2	3	4	5
12. Evaluative thinking.	1	2	3	4	5
13. Problem-solving in different contexts.	1	2	3	4	5
14. Creative thinking.	1	2	3	4	5
15. Networking with others to share and develop ideas and work.	1	2	3	4	5
16. Reading for different purposes.	1	2	3	4	5
17. Reviewing the literature critically and in a dialogue.	1	2	3	4	5
18. Managing and interpreting data.	1	2	3	4	5

1 = new to develop, 2 = some skill, 3 = quite confident, 4 = confident, 5 = a strength of mine

19. Drawing conclusions, both conceptual and factual, and backing up with data.	1	2	3	4	5
20. Using appropriate computer packages and programmes e.g., SPSS and NUDIST Nvivo	1	2	3	4	5
21. Writing for different audiences.	1	2	3	4	5
22. Writing at different levels e.g., for thesis and articles	1	2	3	4	5
23. Structuring and presenting papers.	1	2	3	4	5
24. Managing discussions about your work in context and with a variety of colleagues and experts.	1	2	3	4	5
25. Finishing off pieces of work.	1	2	3	4	5

Adapted from: Wisker, G. (2005). The Good Supervisor. New York: Palgrave Macmillan.

Appendix E

A Sample of Skills Training Requirements for Research Students

(A) Research skills and techniques - to be able to demonstrate:

1. The ability to recognize and validate problems and to formulate and test hypotheses.
2. Original, independent and critical thinking, and the ability to develop theoretical concepts.
3. A knowledge of recent advances within one's field and in related areas.
4. An understanding of relevant research methodologies and techniques and their appropriate application within one's research field.
5. The ability to analyse critically and evaluate one's findings and those of others.
6. An ability to summarize, document, report and reflect on progress.

(B) Research environment - to be able to:

1. Show a broad understanding of the context, at the national and international level, in which research takes place.
2. Demonstrate awareness of issues relating to the rights of other researchers, of research subjects, and of others who may be affected by the research, e.g., confidentiality, ethical issues, attribution, copyright, malpractice, ownership of data and the requirement of the Data Protection Act.
3. Demonstrate appreciation of standards of good research practice in their institution and/or discipline.
4. Understand relevant health and safety issues and demonstrate responsible working practices.
5. Understand the processes for funding and evaluation of research.
6. Justify the principles and experimental techniques used in one's own research.
7. Understand the process of academic or commercial exploitation of research results.

(C) Research management - to be able to:

1. Apply effective project management through the setting of research goals, intermediate milestones and prioritization of activities.
2. Design and execute systems for the acquisition and collation of information through the effective use of appropriate resources and equipment.
3. Identify and access appropriate bibliographical resources, archives, and other sources of relevant information. Use information technology appropriately for database management, recording and presenting information.

(D) Personal effectiveness - to be able to:

1. Demonstrate a willingness and ability to learn and acquire knowledge.
2. Be creative, innovative and original in one's approach to research.
3. Demonstrate flexibility and open-mindedness.
4. Demonstrate self-awareness and the ability to identify own training needs.
5. Demonstrate self-discipline, motivation, and thoroughness.
6. Recognize boundaries and draw upon/use sources of support as appropriate.
7. Show initiative, work independently and be self-reliant.

(E) Communication skills - to be able to:

1. Write clearly and in a style appropriate to purpose, e.g., progress reports, published documents, thesis.
2. Construct coherent arguments and articulate ideas clearly to a range of audiences, formally and informally through a variety of techniques.
3. Constructively defend research outcomes at seminars and via examination.
4. Contribute to promoting the public understanding of one's research field.
5. Effectively support the learning of others when involved in teaching, mentoring or demonstrating activities.

(F) Networking and teamwork - to be able to:

1. Develop and maintain co-operative networks and working relationships with supervisors, colleagues and peers, within the institution and the wider research community.
2. Understand one's behaviours and impact on others when working in and contributing to the success of formal in informal teams.
3. Listen, give and receive feedback and respond perceptively to others.

(G) Career management - to be able to:

1. Appreciate the need for and show commitment to continued professional development.
2. Take ownership for and manage one's career progression, set realistic and achievable career goals, and identify and develop ways to improve employability.
3. Demonstrate an insight into the transferable nature of research skills to other work environments and the range of career opportunities within and outside academia.
4. Present one's skills, personal attributes and experiences through effective CV's, applications and interviews.

Adapted from: The Quality Assurance Agency for Higher Education. 2004. www.qaa.ac.uk.

Appendix F

Exploring the Expectations of Supervisor and Graduate Student

Read each of the statements below and then estimate your position in each. For example with statement 1, if you believe very strongly that it is the supervisor's responsibility to select a good topic you should put a ring round '1'. If you think that both the supervisor and researcher should equally be involved you put a ring round '3' and if you think it is definitely the student's responsibility to select a topic, put a ring round '5'.

You might find it useful to use this as a stimulus for discussion during one of the initial supervision meetings. If both the supervisor and graduate student complete their own form it can serve as a catalyst for negotiation. This form may also be useful for renegotiating the relationship throughout the supervision.

1. It is the supervisor's responsibility to select a research topic.	1 2 3 4 5	The graduate student is responsible for selecting their own topic.
2. It is the supervisor who decides which theoretical framework or methodology is most appropriate.	1 2 3 4 5	The graduate student should decide which theoretical framework or methodology they wish to use.
3. The supervisor should develop an appropriate programme and time-table of research and study for the graduate student.	1 2 3 4 5	The supervisor should leave the development of the programme of study to the graduate student.
4. The supervisor is responsible for ensuring that the graduate student is introduced to the appropriate services and facilities of the department and university.	1 2 3 4 5	It is the graduate student's responsibility to ensure that they have located and accessed all the relevant services and facilities for research.
5. A warm, supportive relationship between supervisor and graduate student is important for successful candidature.	1 2 3 4 5	A personal, supportive relationship is inadvisable because it may obstruct objectivity for both graduate student and supervisor during the candidature.
6. The supervisor should insist on regular meetings with the graduate student.	1 2 3 4 5	The graduate student should decide when they want to meet with the supervisor.

7. The supervisor should check regularly that the graduate student is working consistently and on task.	1 2 3 4 5	The graduate student should work independently and not have to account for how and where time is spent.
8. The supervisor is responsible for providing emotional support and encouragement to the graduate student.	1 2 3 4 5	Personal counselling and support are not the responsibility of the supervisor - graduate students should look elsewhere.
9. The supervisor should insist on seeing all drafts of work to ensure that the graduate student is on the right track.	1 2 3 4 5	The graduate student should submit drafts of work only when they want criticism from the supervisor.
10. The supervisor should assist in the writing of the thesis if necessary.	1 2 3 4 5	The writing of the thesis should only ever be the graduate student's own work.
11. The supervisor is responsible for decisions regarding the standard of the thesis.	1 2 3 4 5	The graduate student is responsible for decisions concerning the standard of the thesis.

Adapted from: Vitae. Careers Research and Advisory Centre (CRAC) Limited. 2011. www.vitae.ac.uk.

Appendix G

Reflective Questions for Supervisors of Culturally Diverse Students

1. Have I made my expectations explicit to my student?

2. Have I seen the *totality* of my student, and taken into consideration the impact of her/his *life-world* upon her/his studies?

3. Have I taken into consideration the possibility that my student will be going through a process of *transition*, as s/he negotiates cultural differences?

4. Have I taken into consideration both my student's and my own need to work on *interpersonal communication*, addressing issues of *race, ethnicity, class, gender, sexual orientation, language, disability, and spirituality* etc.

5. Do I have a process of *documentation* in place with my student, whereby we can record *actions, reflections* and *progress*?

6. Does my student need to develop a range of *research and academic skills* that may not have been necessary in their previous university or workplace?

7. Have I made *time demands* and *deadlines* sufficiently clear as meeting times and work deadlines can differ based on cultural diversity

(Adapted from Slaney, 1999, p. 73, with additions)

Appendix H

Meeting Documentation Form

Name: _____

Programme: _____

Date	Focus	Supervisor Follow-Up	Student Follow-Up

Appendix I

Permission was granted to use this document in its entirety from CAGS.

Canadian Association for Graduate Studies

Association canadienne pour les études supérieures

Guiding Principles for Graduate Student Supervision

This document was prepared by a working group composed of the following members of CAGS:

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A. Introduction

Post-baccalaureate graduate studies are extremely important to the economic and social well being of Canadians and have an ever increasing role in higher education in Canada. Over the 10 year period between 1995 and 2004, graduate student enrollment increased from approximately 113,000 to 149,000 in Canada[1]. Graduate studies are not only a life and career enhancing activity for students, but also a vital component of research and scholarship in Canada, important drivers of the nation's productivity and essential for global competitiveness. The role of supervisors and supervisory committees, as well as the relationship between students and their supervisors, are key components affecting the success of research-stream students in their programs.

Superimposed upon the student-supervisor relationship are the roles of supervisory committees, graduate program committees, departmental bodies, and offices of faculties/schools of graduate studies. Further complicating the issue of graduate student supervision is the diversity in supervision culture across the University, where the relationship may range from a very structured "master to apprentice" scenario to a very unstructured, "subtle guide of an independent scholar."

Despite the complexity and diversity surrounding supervision of graduate students, the Canadian Association of Graduate Studies felt it important that guiding principles for graduate student supervision be identified and endorsed at a national level. While many excellent guides on graduate student supervision exist within various graduate handbooks, senate or faculty by-laws, and websites within graduate schools across Canada, these are often highly specific to individual departments or graduate programs. This document is meant to identify, at a high level, guiding principles which can apply to all graduate supervisors and students. These principles can be a stand-alone resource or a precursor for graduate schools and programs to customize to their particular academic environment. It is also intended that the document be applicable to defining roles and responsibilities of graduate students in the student-supervisor relationship as well as for graduate supervisors and administrators of graduate programs across Canada.

Various documents have been utilized and are cited in the preparation of these guiding principles, but in particular, a document from the University of Western Ontario[2] has been used as a "template" for many of the principles identified here. The principles are intended mainly for research masters and doctoral programs, though they may have relevance to "professional" graduate programs where the student works with a supervisor.

B. Guiding Principles

1. A Supervisor should be identified in a timely fashion

One of the most important aspects of graduate training is the timely, clear identification of a supervisor for each graduate student. This individual plays a key role in setting the direction of the graduate student's research. There are wide variations in the practices of finding such a supervisor, and in the timing of when supervisors are normally assigned to students across discipline, research field and graduate programs. In some fields, students are assigned supervisors before they begin their programs (e.g. commonly the case in engineering, the natural sciences, and some fields in the social sciences), while in others, supervisors are normally assigned after one or more semesters. Whatever the norm for the discipline, field or graduate program, procedures for assigning a supervisor in a timely

fashion should be in place and should be followed. Such procedures should also be clearly documented and known to students and faculty.

2. Supervisory committees or equivalents should be established early.

In most graduate programs, a supervisory committee (or an equivalent, such as "second reader") is also assigned to the graduate student. The supervisory committee normally acts as a supplementary resource for graduate students' research, helps monitor program progress of graduate students, and approves the thesis for defense. Supervisory committees or their equivalent also can play vital roles in managing/mitigating conflict between supervisor and student should it arise. In order to obtain the maximum benefit from such a committee, it should be established as early as possible in the student's program.

3. Expectations, roles and responsibilities of graduate students and supervisors should be made clear.

The University and/or individual graduate programs should provide guidelines on the roles of the supervisor and the graduate student. Some faculties/schools of graduate studies recommend that a written agreement or "contract" be signed by supervisor and graduate student on such issues. In these cases, it is important that students have informed consent and are not coerced into signing contracts with which they are not in agreement. Universities should provide workshops for supervisors and graduate students at which the roles of students and supervisors can be discussed.

4. Supervisors should be readily accessible to their students, and regular monitoring and feedback should be ensured.

Graduate study can be a very unfamiliar environment for new graduate students and students who are new to in Canada. Graduate programs tend to be much less structured than undergraduate programs. Also, the rich cultural diversity in our Universities means that the cultural background of graduate students can be quite different from the norms found within the institution. Because of these realities, it is important that supervisors are highly accessible to provide guidance and feedback to graduate students, but particularly to students for whom both graduate programs and Canada are new. Frequent meetings with graduate students at which academic, research and other issues are addressed, progress is reviewed, evaluation is provided, and future activities are identified are extremely important for the success of students. Most graduate programs require a written report on student's progress to be submitted to departmental, school or faculty offices at least once per year.

Such formal procedures, while essential, should not preclude more frequent evaluation of student activities and progress on a more informal basis, such as office or lab meetings, email communications and telephone conversations. When supervisors will be absent from the university for extended periods of time (e.g. field seasons; sabbatical leaves), steps need to be taken to ensure continuation of quality supervision during these absences.

5. Student-supervisor relationships should be professional.

The relationship between supervisors and students, however friendly and supportive it may become, should always be academic and professional. Relationships that are at odds with an arm's length criterion (e.g., romantic, sexual, family ties) are unacceptable between supervisors and students. If a substantial conflict of interest arises (e.g., when supervisors develop emotional, financial and/or business arrangements with the student) mechanisms should be in place to initiate a change of supervisor.

6. Intellectual debate and challenge should be encouraged and supported.

Intellectual debate is a fundamental component of university activity. Every effort should be made by both the student and supervisor to recognize and acknowledge that a robust element of academic challenge and questioning is a normal, and indeed, healthy aspect of the student-supervisor relationship.

7. Supervisors should be mentors

Supervisors have responsibilities beyond the academic supervision of research and writing. Although the mentoring role will vary across disciplines, and will depend on the needs of the individual student, supervisors should be responsible for mentoring students in areas such as, but not limited to, the development of appropriate professional skills; applications for funding; networking opportunities with colleagues in academia and beyond; assistance with publications; and career development.

8. Issues of intellectual property and authorship should be made clear.

Supervisors are responsible for informing students about university policies that govern intellectual property, and about any specific intellectual property issues that are likely to arise from their research.

Even when issues are not clearly defined, it is important that students and supervisors have a discussion and reach an agreement early in their relationship regarding issues including rights of authorship, the order of authorship on multi-authored publications, and ownership of data. It is inappropriate for thesis supervisors to ask students to sign over their intellectual property rights as a condition of pursuing thesis research under their supervision.

9. Conflicts should be resolved at the lowest level possible.

From time to time, conflicts may emerge between the supervisor and the student. Involving more people and higher levels of authority in a conflict can result in exaggeration of the original problem. This makes it harder to resolve and causes more damage to the participants and those around them. Conflicts should be resolved as close as possible to the source of the problem (i.e., at the lowest level of administration). If the student and supervisor cannot find a solution after discussing the problem, they should then involve the supervisory committee or equivalent. If the problem cannot be resolved at the student-supervisor level, it may be dealt with by the program. The University should ensure that appropriate resources (e.g. ombudsperson, equity office) are available to assist. If no satisfactory resolution can be found at the program level, the problem may be referred to the higher administrative levels. All parties should follow procedures congruent with established policies of their universities.

10. Continuity is important in graduate supervision.

The relationship between the student and supervisor is often critical to the student's successful completion of the degree. Continuity of supervision is an integral component of this relationship, since it provides (or should provide) stability, security, an opportunity to establish sufficient mutual knowledge and trust to facilitate effective intellectual debate, and generally an environment that allows optimal focus on the goals of the graduate program. As a consequence, a change in supervisor should be made only for strong and compelling reasons such as a mutually agreed major shift in academic direction of the research, major academic disagreements and/or irreconcilable interpersonal conflicts. It is recognized that some programs may place each new incoming student with an initial or temporary supervisor. In these cases, a subsequent timely change in supervisors, as the student clarifies research interests, is generally a routine matter.

11. Alternative supervision should be available.

Policies and practices should cover situations in which a supervisory relationship cannot be continued, so that the student can continue in the program. These should cover situations beyond the control of the student (e.g. temporary or permanent absence of supervisor), situations that may arise from conflict of interest, and situations that result from personal relations between supervisor and student. Notwithstanding possible delays in time to completion, policies and practices should ensure that a student is not penalized is a change in supervisor is necessary.

12. Students have substantial responsibilities for managing their own graduate education

Students share in the responsibility for the goals that they successfully complete their program, and that it be of high quality. They are responsible for knowing and conforming to the various policies and procedures that may concern academic and research conduct, intellectual property, human subjects, animal welfare, health and safety, as well as degree and program requirements and timelines. They may need to be proactive and take responsibility for ensuring good communication with supervisory committee members, in the meeting of timelines and other program requirements, and in seeking effective advice on academic and other matters. If problems arise in the supervisory relationship, it may be the student who needs to take action and seek advice and remedy from the department or the school. The university, graduate department and supervisor are responsible for providing an appropriate environment for high-quality graduate education, but success is ultimately in the hands of the student. It is therefore essential that universities inform students of their responsibilities, and provide them with the information and support that they need to carry out their responsibilities

C. Conclusion

As noted in these principles, successful supervision of graduate students depends on a healthy and productive relationship between the supervisor and graduate student, within a milieu that involves several other parties and conditions. At the core of successful supervisor-graduate student relationships are mutual respect and professionalism. When combined with clarity on the respective roles of students, supervisors, and others involved in the students education, and information on the policy and procedures relevant to a student's graduate program, these features will serve students, supervisors and the rest of the University community well. Our goal is to ensure the success of graduate students in their programs and in their future endeavours.

D. References

[1]Canadian Association of Graduate Studies, 2007. 36th Statistical Report, 1992-2004. CAGS, Ottawa, Canada.
[2]Faculty of Graduate Studies, University of Western Ontario, 2007. Principles and Guidelines Regarding Graduate Student Supervision. http://grad.uwo.ca/supervis/supervis.html

E. Other Resources

Butterwick, S. and Mullins K., 1996. Research on Graduate Student Supervision: The State of the Art. The Centre for Teaching and Academic Growth, University of British Columbia. (available at: http://www.tag.ubc.ca/resources/tapestry/archive/96/art.html).

Canadian Association of Graduate Studies, 2005. Graduate Studies: A Practical Guide. CAGS, Ottawa, Canada (NB: 2003 edited version by M. Crago available at: http://www.unb.ca/gradschl/apply/documents/GraduateStudiesAPracticalGuide_000.pdf).

School of Graduate Studies - University of Toronto, 2002. Graduate Supervision Guidelines for Students, Faculty, and Administrators. University of Toronto, Toronto, Canada (available at: http://www.sgs.utoronto.ca/current/supervision/guidelines.pdf

Faculty of Graduate Studies – University of British Columbia, 2007. Handbook of Graduate Supervision. University of British Columbia, Vancouver, Canada (available at: http://www.grad.ubc.ca/students/supervision/index.asp?menu=000,000,000,000.

Faculty of Graduate Studies – Simon Fraser University, 2007. Report of the task force on graduate student supervision. Simon Fraser University. Burnaby, Canada. (available at: http://www.sfu.ca/dean-gradstudies/surveys/SupervisionTaskForce.html)

Canadian Association of Graduate Studies, 2005. A Guide to Intellectual Property for Graduate Students and Postdoctoral Scholars. CAGS, Ottawa, Canada. http://www.cags.ca/Portals/34/pdf/Guide_Intellectual_Property.pdf

"Supervising postgraduate research students." Retrieved 11-03-01, 2011.

Bartlett, A. and G. Mercer, Eds. (2001). Postgraduate research supervision: transforming relations. Eruptions: Thinking across the disciplines. New York, Peter Lang.

Biggs, J. B. (1978). Individual and group differences in study processes and the quality of learning outcomes. Higher Education 48: 266-279.

Bloom, B. S. (1971). Mastery learning. In J. H. Block (Ed.), Mastery learning: Theory and practice. (pp. 47–63). New York: Holt, Rinehart & Winston.

Bozeman, B.; Feeney, M. K. (2007). Toward a useful theory of mentoring: A conceptual analysis and critique. Administrative and Society 39 (6): 719–739.

Brew, A., and Peseta, T. (2004). "Changing postgraduate supervision practice". Innovations in Education and Teaching International 41(1): 5-22.

Susan M. Brookhart. How to Give Effective Feedback to Your Students.
From: *http://www.ascd.org/publications/books/108019/chapters/Types-of-Feedback-and-Their-Purposes.aspx*.

Clark, T., Moran, G., Skolnick, M., and D. Trick. (2009). Academic Transformation: The Forces Reshaping Higher Education in Ontario. Montreal & Kingston, McGill-Queen's University Press.

Cote, J. and A.L. Allahar. (2007). Ivory Tower Blues: A University System in Crisis. Toronto: University of Toronto Press.

Delalmont, S., P. Atkinson, et al. (1997). Supervising the PhD: A guide to success. Philadelphia, McGraw-Hill Education.

Detsky, A. S. and M. O. Baerlocher (2007). "Academic Mentoring -- How to Give It and How to Get It." JAMA 297(19): 2134-2136.

Dimitrov, N. (2009). Western Guide to Mentoring Graduate Students across Cultures. Teaching Support Centre Purple Guide. *www.uwo.ca/tsc*.

Doyle, E. Skarakis, G. McIntyre. (2005). Western Guide to Graduate Supervision. The University of Western Ontario Teaching Support Centre.

Duechar, R. (2008). "Facilitator, director or critical friend?: contradiction and congruence in doctoral supervision styles." Teaching in Higher Education 13(4): 489-500.

Emilsson, U. M. and E. Johnsson (2007). "Supervision of supervisors: on developing supervision in postgraduate education." Higher Education Research & Development 26(2): 163-179.

references

Freckleton, L., Creighton, E., and Wisker, G. (2003). Internationalisation of the curriculum and employability. World Views: The Magazine for UKCOSA Members 11, 10-12.

Gatfield, T. (2005). "An Investigation into PhD Supervisory Management Styles: Development of a dynamic conceptual model and its managerial implications". Journal of Higher Education Policy and Management 27 (3) 311-325.

Hammer, M. (2005). The Intercultural Conflict Style Inventory: A conceptual framework and measure of intercultural conflict resolution approaches. International Journal of Intercultural Relations 29 (6), 675-695.

Hattie, J. and Helen Timperley, (2007). "The Power of Feedback", Review of Educational Research 77(1): 81-112.

Holbrook, A., S. Bourke, et al., (2007). "Examiner comment on the literature review in Ph.D. theses." Studies in Higher Education 32(3): 337-356.

James, R. and G. Baldwin (1999). Eleven practices of effective postgraduate supervisors. Melbourne Australia, The Centre for the Study of Higher Education and The School of Graduate Studies, The University of Melbourne.

Kolb, D. (1984). Experiential Learning. Englewood Cliffs, New Jersey: Prentice-Hall.

Land, B. (2001). Web Extension to American Psychological Association Style *http://www.beadsland.com/ARC/1996/beadsland/ROOT/weapas/html/index/*.

Laroche, L. (2003). Managing Cultural Diversity in Technical Professions. New York: Butterworth-Heinemann.

Lee, A. (2007). Developing effective supervisors. South African Journal of Higher Education 21(4): 680-93.

Lee, A. (2008). "How are doctoral students supervised? Concepts of doctoral research supervison." Studies in Higher Education 33(3): 267-281.

Lee, A. (2009). "New Approaches to postgraduate supervision and supervisor development." Vitae: realizing the potential of researchers. Retrieved 11-03-0, 2011, from *http://www.vitae.ac.uk/researchers/1271-65481/Feature-New*.

Lee, A. (2011). Successful Research Supervison: Advising Students Doing Research. New York: Routledge.

Nightingale, P. (2005). Advising PhD Candidates. Milperra NSW, Higher Education Research and Development Society of Australasia Inc.

Pearson, M. and A. Brew (2002). "Research Training and Supervision Development." Studies in Higher Education 27(2): 135-159.

Pole, C. (1998). Joint Supervision and the PhD: Safety Net or Panacea? Assessment & Evaluation in Higher Education 23(3): 259-271.

Prosser, M. and K. Trigwell. (1999). Understanding Learning and Teaching. Buckingham: Open University Press.

Ramani, S., Gruppen, L., & E.K. Kachur. (2006). "Twelve tips for developing effective mentors." Med Teach 28: 404-408.

Santucci, A. K., J. H. Lingler, et al. (2008). "Peer-Mentoring Research Development Meeting: A Model for Successful Peer-Mentoring Among Junior Level Researchers." Academic Psychiatry 32(6): 493-497.

Shelley, F. M. and A. M. Proffer. (2008). Advising Students. Aspiring academics: a resource book for graduate students and early career faculty. M. Solem, K. Foote and J. Monk. London, Pearson Education Ltd.: 100-111.

Slaney, K. (1999). Models of supervision for enhancing the English language communication skills of postgraduate students, in M. Kiley and G. Mullins (eds), Quality in Postgraduate Research: Making Ends Meet. Adelaide: Advisory Centre for University Education, University of Adelaide.

Ting-Toomey, S. and Oetzel, J.G. (2001). Managing intercultural conflict effectively. Thousand Oaks, CA: Sage.

Wisker, G. (2005). The Good Supervisor: Supervising Postgraduate and Undergraduate Research for Doctoral Theses and Dissertations. New York, Palgrave MacMillan.

Wisker, G., Robinson, G. & M. Shacham. (2007). "Postgraduate research success: communities of practice involving cohorts, guardian supervisors and online communities". Innovations in Education and Teaching International 44 (3) 301-320.

Zuber-Skerritt, O. (2002). Supervising Postgraduate Students from Non-English Speaking Backgrounds. Buckingham: Open University Press.

notes