

Institutional support for doctoral education: Evidence-based policies and pedagogies for Graduate Program Directors¹

Introduction

Much has changed on the Canadian doctoral landscape since Elgar (2003) wrote about the serious problems in doctoral programs. As in other national jurisdictions, greater attention is now directed at ensuring doctoral students successfully complete their degrees in a timely fashion. Still, we know that problems remain: from student financial difficulties, to plagiarism, lack of progress to supervision conflicts. While such problems will continue to emerge, we hope with less frequency, here we focus not on problems but on institutional initiatives that you as Graduate Program Director can implement to support programs and specifically, students and supervisors. This report is organized as follows:

- A brief introduction to our research to highlight the evidence base for our recommendations
- Pedagogical principles emerging from the evidence followed by questions to guide action

Our research²: The basis for our recommendations

Our longitudinal qualitative research program funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) began in 2006. In 2007, a companion project in the UK began, funded by alternate sources. Our initial motivation was pragmatic: to address the substantial problem of PhD non-completion (Yeates 2003). We realized about a year into the research that our focus on non-completion was changing to a broader one, which highlighted learning to do academic work. (See Appendix 1 for more detail.) Initially data were collected from doctoral students in the social sciences. We followed over 50 individuals for at least one year and have followed twenty-two individuals for over five years as they have moved into both academic and non-academic careers. In 2010-11, we began collecting data in the sciences using the same longitudinal research design. Twenty are in their third year of participation and 13 in their second. As with those in the social sciences, individuals have moved from one role to another and from one institution to another.

Guiding principles (drawing on our research and the literature)

There is sufficient evidence in the literature to show that doctoral student progress is influenced by the total learning and research environment not just the relationship with the supervisor and committee. At the same time, our research findings provide clear evidence of students' efforts to be agentive, to set goals and to plan strategies to achieve them. Based on our research, several principles are apparent for which there is corroboration in the literature. (See Appendix 2 for rationales for each.) These are likely not completely 'new' to you but we think provide a broad and more conceptual understanding of the potential of your role as Graduate Program Director to influence doctoral education.

1. Knowledge of policy and procedure is not enough. Comprehensive and attractive communication strategies are essential that go beyond identifying policy and procedure.
 - Does the departmental website complement the Graduate Studies website to meet the needs of your particular programs?
 - Does the departmental/program website provide just-in-time advice and strategies for supervisors and students (e.g., effective communication, research productivity, providing constructive feedback)?

¹ This is one of four reports prepared for the CAGS website; the others address Deans of Graduate Education, supervisors, and students.

² The research is represented in a substantial body of work referenced at <http://doc-work.mcgill.ca>.

- Does the departmental/program website provide access to institutional resources (e.g., counselling service, international students' office)?
 - Do you regularly discuss with faculty the findings from institutional research?
2. Learning required at the doctoral level is substantially different from previous levels of education (e.g., greater autonomy, greater analytical skills, more substantive independent work, less structured course work). Admission processes that match applicant knowledge and ability with what will be actually required of applicants to be successful at the doctoral level are necessary as are methods for tracking of progress.
- Do program admissions procedures take this into account?
 - Are there tracking mechanisms of progress that allow supervisors and students to provide input and the program director to address and report any problems? And are they consistently used?
 - Have you offered programs models of novel admissions processes (e.g., skype interviews, the same writing task) that take into account criteria beyond previous GPA?
 - Have you provided programs with statistics about the long-term costs for students who are slow to complete or do not complete (e.g., time in degree, change of supervisors, number and types of problems coming to you)?
3. Supervision should **not** be viewed as an individual responsibility (i.e., the supervisor's), but as a collective distributed responsibility.
- Have you offered programs models for how committees can work effectively and efficiently?
 - Have students been provided with codes of practice, which make clear their role in progressing their studies?
 - Have you provided programs with suggestions of other ways that faculty can support student progress in addition to the supervisor-student relationship (e.g., organizing and attending student seminars)?
 - Supervisory relationships don't always work; changes are normal – in fact, one study suggested that 20% of students change supervisors. Do students understand that they can change supervisors? Is the way to do this clearly stated in an accessible location?
4. Supervision should be viewed as teaching with a focus on developing researcher knowledge.
- Does new faculty orientation at departmental/program levels specifically address supervision as part of teaching?
 - Are doctoral program reviews and new program proposals required to demonstrate the intentional development of curriculum to support research knowledge and skills development? (For example, in the UK, many institutions are using what is called the researcher development framework to provide a set of learning goals or needs).
 - Are supervisors and students aware of institutional resources focused on career preparation?
 - Are supervisors urging students to investigate the value of a PhD in advancing their career goals?

NB Useful resources for supervisors and students that draw on our research can be found at <http://www.learning.ox.ac.uk/supervision> and also <http://www.mcgill.ca/gradsupervision>.

For further information, contact Lynn McAlpine (lynn.mcalpine@mcgill.ca) or Cheryl Amundsen (camundsa@sfu.ca).

Appendix 1. The scope of the research

Our longitudinal qualitative research program began in 2006. Volunteer participants were recruited (email, snowballing) from universities in large cities, two universities in Canada and two in the UK. In all universities, tenure-track and tenured faculty have responsibilities for research, teaching and service.

Initially data were collected in the social sciences (2006-2007) from approximately 50 doctoral students. They were in sociology and social policy, teacher education, environmental studies, management studies, human geography, kinesiology, information sciences, and counseling psychology. A subset agreed to continue and 22 have remained into the sixth annual cycle of data collection; they have now taken up a range of careers in different locations.

In 2010-11, we recruited in the same manner over 40 doctoral students, post-PhD researchers and new lecturers, again in two UK and two Canadian universities in math, zoology, engineering, computing science, chemistry, and the biosciences. They have engaged in the same cycle of data collection. At this point, 20 are in their third year of participation and 13 in their second. Like the social scientists, over time, individuals in the roles of doctoral student, postdoc and pre-tenure faculty have moved from one role to another and from one institution to another or to non-academic contexts.

Demographically, the range is diverse. In terms of doctoral students, both in the social sciences and sciences, participants ranged in age from mid-20s to late 40s. A good number are international with English-as-another-language; similarly many had partners and children.

References to our work

- Amundsen, C. & McAlpine, L. (2009). Learning supervision: Trial by fire? *Innovations in Education and Teaching International*, 46, 3, 331-342.
- McAlpine, L., & Amundsen, C. (2012). Challenging the taken-for-granted: How research analysis might inform pedagogical practices and institutional policies related to doctoral education. *Studies in Higher Education*, 37, 6, 667-681.
- McAlpine, L., & Amundsen, C. (2011). *Supporting the doctoral process: Research-based strategies for doctoral students, supervisors and administrators*. Amsterdam: Springer.
- McAlpine, L., Amundsen, C., & Turner, G. (in press). Identity-trajectory: Reframing early career academic experience. *British Educational Research Journal*.
- McAlpine, L., Amundsen, C., & Turner, G. (2013). Constructing post-PhD careers: Negotiating opportunities and personal goals. *International Journal of Researcher Development*. iFirst August 8, 2013, 4, 1, 1-16.
- McAlpine, L., & McKinnon, M. (2012). Supervision – the most variable of variables: Student perspectives. *Studies in Continuing Education*. iFirst November 29, 2012.
- McAlpine, L. (2012). Shining a light on doctoral reading: Implications for doctoral identities and pedagogies. *Innovations in Education and Teaching International*, 49, 4, 351-361.
- McAlpine, L., Paulson, J., Gonsalves, A., & Jazvac-Martek, M. (2012). ‘Untold’ doctoral stories in the social sciences: Can we move beyond cultural narratives of neglect? *Higher Education Research and Development*. 31, 4, 511-523.

Appendix 2. Rationale for principles

1. Knowledge of policy and procedure is not enough. Comprehensive and attractive communication strategies (e.g. a website) are essential that go beyond identifying policy and procedure to include guidelines, examples and resources that are available to students and supervisors. *Rationale:*
 - a. Students and (new) supervisors often report having difficulty in finding relevant policies, forms and support when they need them.
 - b. Institutional policies and forms of support change frequently but such changes do not necessarily reach those for whom they are intended.
 - c. Forms of support are distributed in units across the university and it is difficult for anyone to know what is on offer.
 - d. Supervisors and students can often identify an issue, but do not have examples showing how to proceed.

2. Learning required at the doctoral level is substantially different from previous levels of education (e.g., greater autonomy, greater analytical skills, more substantive independent work, less structured course work). Admission processes that match applicant knowledge and ability with what will be actually required of applicants to be successful at the doctoral level are necessary as are methods for tracking of progress. *Rationale:*
 - a. Reasons for lack of progress and attrition vary but often can be linked to insufficient selection and admissions processes leading to, for instance, lack of student understandings of the scope of doctoral work, or ‘poor fit’ between the student and the program.
 - b. Without regular tracking of progress, problems often only emerge when they are serious whereas ‘nipped in the bud’ they may be dealt with more straightforwardly.

3. Supervision should **not** be viewed as an individual responsibility (i.e., the supervisor’s), but as a collective distributed responsibility. *Rationale:*
 - a. New supervisors care deeply about doing a good job of supervision, but may i) feel underprepared, and ii) experience a departmental climate that is not supportive.
 - b. Students often will not reveal difficulties to supervisors because they wish to be agentive and also because they fear not living up to expectations.
 - c. Supervisors cannot provide all the support that is necessary, but there are multiple individuals/units in the department/university that can support supervisors and students.

4. Supervision should be viewed as teaching with a focus on developing researcher knowledge. *Rationale:*
 - a. There are increasing pressures for doctoral education to be more comprehensive in scope (e.g., ensuring student develop the knowledge and capabilities necessary for non-academic as well as academic careers) and shorter in duration. In this context, a more structured program is called for that intentionally develops a range of knowledge and abilities beyond the specifics of completing a thesis.
 - b. Further, over the past 10 years’ of research, students have consistently noted the following program gaps: i) career development, ii) day-to-day ethical practice, iii) academic communication beyond the doctoral genres, iv) management skills, v) teaching skills.