

## **Canadian practices related to the examination of PhD theses**

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### Abstract

Differences among Australia, Canada, and the US in outlook and practice regarding the examination of research doctoral theses led to a survey of Canadian graduate deans to clarify the most common practices in Canada. The results from the survey show a wide variation of practice on many questions. Australian universities' practices are offered as a point of comparison, and their development of a framework of best practice as a possible direction.

### Preface and Acknowledgement

Practices regarding the final examination of research higher degree (to use the Australian phrase) doctoral theses vary among Canada, Australia, the U.S. and the U.K. The nature of these differences was brought out in several discussions with Dean Barbara Evans and Dr. Maresi Nerad while spending part of my 2005 research leave at the School of Graduate Studies at the University of Melbourne. In those discussions, I necessarily drew on my knowledge of specific practices at what was then my own institution. The issues raised led me to wonder to what extent McMaster's practices were typical of Canadian practice. To answer that question, I surveyed my colleagues, the Canadian graduate deans. This paper provides the results of that survey, and offers some comparisons between Canadian and Australian practices.

A version of this paper directed to Australian graduate deans was presented at the April 2006 meetings of the conference on Quality in Postgraduate Research, held in Adelaide Australia. That paper is available in the on-line proceedings at [http://www.qpr.edu.au/2006/qpr2006\\_part1.pdf](http://www.qpr.edu.au/2006/qpr2006_part1.pdf) starting at page 11 of the pdf. The report on the survey is nearly identical in that paper and this one. The discussion differs slightly because it is aimed at different audiences. Because that paper is in an unusual location for a Canadian graduate dean to find, this version has been produced for a Canadian audience.

### Introduction

There are potentially two main components of the final examination of a doctoral thesis: review of the document by external examiner(s); and an oral examination of the candidate, or *viva voce*. Generally speaking, the UK and Canada use both; Australia uses only the former; and the US uses only the latter. This paper starts with a short overview of the national contexts for final examination of doctoral theses for these four countries. It then turns to details of the Canadian situation, based on the survey already mentioned. Finally, it offers a comparison of the Canadian and Australian practices.

### National context for RHD doctoral final examination

#### *Australia*

The situation in Australia contrasts markedly with that in Canada and the US with regard to governmental involvement in the examination of RHD doctoral theses. In

Australia, the Research Training Scheme (RTS) mandates the use of external examiners, in that it defines eligibility of a student (for government funding to the university) as follows.

“A research programme is defined as having a minimum of two-thirds of its assessable content by research and the assessment process must involve at least one qualified examiner external to the institution” (DEST, 2004)

The “Framework for best practice in doctoral examination in Australia” recently published by the Australian Council of Deans and Directors of Graduate Studies (DDOGS) specifies a larger number of examiners:

“...doctoral theses are sent out for examination by two or three examiners (at least two of whom must be external to the candidate’s university). One or more of the examiners is commonly from an overseas university or research organisation.” ((DDOGS, 2005)

In general, there is no final oral examination (or *viva voce* to use the UK term well known in Australia) of the doctoral candidate. The “Framework” does address oral examinations, and comments that they “may be appropriate in some cases,” implying a weak endorsement at best. The two principal reasons that have arisen in discussions about the absence of a final oral examination in Australia are distance based: the candidate has usually left the university prior to or upon submission of the thesis, often to go to a different country; and one or more examiners are usually chosen from outside the country, making their attendance at a defence or examination problematic.

#### *United States*

The situation in the US is almost the opposite of that in Australia. First, there is no central national funding or regulation of universities (other than through research grants). Second, in the absence of national regulation, none of the states have stepped into the breach and issued their own regulations calling for external examination of doctoral theses. Third, most universities require an oral defence of the thesis, or examination of the candidate regarding the finished thesis. And fourth, few if any universities make use of external examiners. The most frequently heard rationale is that to rely on an examiner external to the university would be to abdicate responsibility for the quality of one’s own degrees.

#### *United Kingdom*

The UK, as mentioned above, uses an external examiner and a *viva voce*. Both Australian and Canadian practice are in some respects derivative of that in the UK, at least originally. The UK practice itself may well have developed from similar practices for undergraduate degrees, at least in early years of offering them, although the origin of the practice is not discussed in the considerable recent UK literature on examining the doctorate. Green and Powell’s book (2005) devotes two chapters (11 and 12) to examining the doctorate, covering both the oral exam (*viva voce*) and the external examination in current practice, but does not address the origin of the practice. Tinkler and Jackson have published several items on this topic, starting with (Tinkler, 2000) and culminating with their book (Tinkler, 2004). Both of the books referred to have extensive bibliographies on the topic, attesting to its importance within the UK, but none seem to address origins.

#### *Canada*

In Canada as in the UK, both an external examiner and an oral defense of the thesis are standard practice, as will be documented in the survey results below. Surprisingly, there has been little discussion of the issues, especially given the continued debates and assessments of the practice within the UK and Australia. It is for that reason that the results of the survey given below may be of interest in starting a dialogue within Canada.

#### The Canadian survey

A survey was sent to the e-mail list of the Canadian Association for Graduate Studies on April 22, 2005. Follow-up correspondence was sent to the dean at specific institutions, both to ensure that as many of the larger universities as possible were included in this report, and to clarify answers in a number of cases. Twenty-six universities participated, as listed in Appendix A. This report provides a compilation of those responses, with some editorial interpretation. The report follows the order of the questions as asked in the survey, with the exception of Question 4, which has been moved here to directly after Question 1.

In the survey, the questions were preceded by the following definition: “For the purposes of this survey, external examiner means an individual who does not hold an appointment at your own university, and who reads and sends a report on a thesis (or dissertation) written by one of your students. The examiner may or may not attend an oral defence; that is a separate question, below.”

*1. For the final examination of a doctoral thesis, do you require one or more external examiners, and if so how many?*

This was one of the few questions with a unanimous response. All 26 universities use one (and only one) external examiner for doctoral dissertations.

*4. Do you require that at least one of the external examiners be from outside Canada?*

This was the second question on which there was unanimity. No university required that the external be from outside Canada.

*2. a. Do you require that the thesis be approved by the supervisory committee members before it can be sent to the external?*

	Frequency	Percent
no	9	34.6
yes	16	61.5
Total	25	96.2

Of the nine who said ‘no’, several indicated that it is the student’s decision to put the thesis forward for final defence. Others indicated that all members of the examining committee (which might include supervisory committee members) receive the thesis at the same time.

Of the 16 who said 'yes', several indicated that there is an option for the student to proceed to defence even in the absence of supervisory committee approval. The University of Guelph described difficulties that had been encountered, with "students alleging that racism, interpersonal difficulties, or whatever were colouring the advisor(s)' willingness to sign off. The legal advice we received ... is that we should allow the student to proceed if s/he wishes, but only if we can demonstrate that they have had full advice.... This issue of whether a student is "ready for defence" and the university's obligations in advising him/her, have been one of the thorniest in my term as dean." The Graduate School at Guelph has developed a new form, which "has solved 95% of the problem," and have agreed to make it available via this report. It can be found at <http://www.uoguelph.ca/graduatestudies/forms/examreq.pdf> (Accessed 2007 Sept 29.)

2. b. *If yes, is unanimous approval required?*

	Frequency	Percent
no response	1	3.8
no	10	42.3
yes	5	19.2
Total	16	65.4

3. a. *What happens when there is a negative report from the external examiner?*

There was a surprising variety of answers to this question. Practice ranged from giving the student the external's report and letting her or him decide whether to proceed to the oral defence, through having the Dean of Graduate Studies decide whether to allow the student to proceed. As shown in the following table, seven allowed the candidate to decide whether to proceed (with two of these giving the student the external's comments directly). Eight made the decision within the Graduate studies office. The supervisor alone made the decision in two cases; in five others it was the supervisory committee that did so; and in one it was the department head. In four cases, it was the thesis examining committee that decided whether or not to proceed. In some cases this was simply majority vote of the reports; in others it was an actual meeting of the group.

Involvement in decision about dealing with negative external comments							
	student	SGS	sup	sup com	dept head	exam com	not stated
decision made by	7	8	2	5	1	4	2
with input from		1	2	1	1		

Twelve said the oral exam was almost always postponed; another five said it was sometimes postponed.

3. b. *If you use two or more external examiners, how do you reconcile differences of opinion amongst them?*

The only time an institution used two externals was when the first report had been negative and the decision was to go to a different external, with or without

revisions to the thesis. In those (few) cases, the second external's opinion governed.

5. a. *Do you have explicit eligibility criteria for external examiners?*

Yes: 20; No: 5. Two of the 'no' answers listed some criteria in response to the next part of the question, but indicated that there are no official or published criteria.

5. b. *If yes, please briefly identify those criteria. For example, is affiliation with a university required?*

To the specific question about university affiliation, the answers were: yes 2, no 5, and 'university or an equivalent record' 5. The other criteria that were volunteered were as follows.

Arm's length	12
Expert on topic	11
Scholarly record	8
Earned Doctorate	7
Supervisory experience	5
Associate or Full Prof	2
Active researcher	1

With regard to the 'arm's length' issue, the University of Victoria has a helpful statement about its importance and some considerations in assessing it, on <http://web.uvic.ca/gradstudies/research/pdf/faculty/PhDExtExamGuide.pdf> (accessed 2007 September 29).

6. *Who obtains the agreement of the external individual to examine the thesis, e.g. the supervisor, the department, the graduate school? (If it is not the graduate school, skip to question #9.)*

	Frequency	Percent
no response	1	3.8
department	10	38.5
Grad School	9	34.6
supervisor	6	23.1
Total	26	100.0

In a number of cases, either the department (chair or graduate advisor) or the supervisor made the initial contact with one or more prospective external examiners to ascertain their willingness and availability. The graduate school was then informed of the name(s), and needed to approve before sending a formal invitation. Those answers have been coded above as 'supervisor' or 'department'. The nine cases shown as 'Grad School' represent those in which the graduate school made the first contact with the potential external examiner.

7. a. *If the graduate school obtains the agreement of the external individual, are you given just one name, or a list of possibilities?*

7. b. *If a list, how many names do you request?*

There were 17 responses to this question, reflecting situations where the graduate school makes either the first contact or the official contact. In nine of the 17 cases only one name was provided; in three cases there were two names; and in five cases there were three names.

8. *If the arrangements are made by the graduate school, what if any information do you request to allow you to confirm that a nominee is acceptable? (E.g. a full CV; a website URL; a one-page summary of a CV)*

There were ten non-responses to this question. Those who did reply gave these answers:

only the name (“we do our own checking”)	2
short description or short CV	4
CV	7
CV or URL or hardcopy from website	2
CV and publications	1

9. a. *Do you require an oral defence as part of the final examination of the doctoral thesis?*

One respondent did not answer this question; all 25 others said ‘yes’: an oral defence is required.

10. *If an oral defence is required, is it mandatory for the external examiner to attend the oral defence?*

no	9
no but encouraged	2
yes	2
yes or phone or video conference	11
no response	2

Practice seems to be evenly split on this issue, with the largest number relying on teleconferencing or videoconferencing when an external is unable to attend in person.

11. *Are the members of the supervisory committee voting members of the oral defence examining committee?*

yes	16
yes, two	3
supervisor only	4
only one	1
no	1
no response	1

The responses to this question suggest that all but one university accept the principle that the supervisor, and/or other member(s) of the supervisory committee is/are appropriate judges of the final product, and of the student's ability to defend it. Three of the four institutions that allow only the supervisor on the examining committee are the Quebec universities that responded.

12. *How large is the supervisory committee?*

3	11
3 or more	4
3 usually	1
2 or 3	1
2 to 5	1
4	1
1	1
depends on unit	1
unknown	1
no response	4

This seems an issue on which either regulations differ across universities, or there are no regulations at the university level and the responses are simply empirical reporting.

13. *Does the examining committee for the oral defence include one or more examiners internal to the university who are not members of the supervisory committee? If yes, how many?*

Twenty-two answered yes; one answered no; one had no rules on this; and one said not necessarily. (There was one non-response.) The numbers of internal externals used at each university are reflected in the following table.

	Frequency	Percent
no response	3	11.5
1	17	65.4
1 or 2	1	3.8
2	3	11.5
2 or 3	1	3.8
3	1	3.8
Total	26	100.0

14. *If the external examiner is not required to attend the defence, how is the external examiner's assessment used as part of the oral examination process?*

The two answers to this question can be represented by this quote: "Either the Chair or the supervisor reads out the comments of the external and asks the

questions of the external. The answers are assessed by the attending examining committee.”

14. a. *For example, is the external examiner’s report provided in advance to the examining committee?*

Six said yes; six said no; one said “only to the student, supervisor, and defence chair”. There was no response from the other thirteen (who were for the most part those who require the external’s attendance).

14. b. *Is the external examiner required to submit questions that are asked at the oral defence?*

Seven said yes; five said no; one said it is encouraged.

15. *Is the voting protocol for the outcome of the oral defence a simple majority, or are some participants given more weight than others?*

There was far from unanimity in the responses to this question, as is indicated in the following table. The external examiner appears to have a privileged position in six universities.

	Frequency	Percent
no response	2	7.7
ext has more weight	1	3.8
ext veto	2	7.7
majority	14	53.8
majority, which must include ext	2	7.7
one neg allowed	2	7.7
unanimity	2	7.7
unanimity less one, with ext with majority	1	3.8
Total	26	100.0

16. *How far in advance of the oral defence must the external examiner’s report be received?*

	Frequency	Percent
no response	1	3.8
no policy	1	3.8
before exam begins	1	3.8
a few days	1	3.8
one week (incl 8 and 7-10 days)	17	65.5
two weeks	3	11.5

three-four weeks	1	3.8
date set after reports rec'd	1	3.8
Total	26	100.0

Here, as in some other responses, there appears to be a combination of regulation and practice in the responses. It is also not clear for the longer time intervals whether or not the exam date is set in advance of receiving the report. I had implicitly assumed that practice in the question, but it may not be a valid assumption.

*17. a. Is the student allowed to read the external examiner's report in advance of the oral defence?*

Here is where the differences among our institutions stood out most clearly. Responses ranged from “yes, essential” to “no absolutely not!” The ‘yes’ was expanded to indicate that the student needs to be able to prepare responses to the issues raised. Again there were some pragmatic responses, indicating that although it was not officially permitted (or there was no policy on it), there were no doubt supervisors or exam committee chairs who showed the report to the student.

	Frequency	Percent
no response	1	3.8
no	18	69.2
not officially	2	7.7
up to supervisor	1	3.8
yes	4	15.4
Total	26	100.0

*17. b. If not, does the student receive a copy of the report at the conclusion of the oral defence?*

	Frequency	Percent
no response	6	23.1
if requested	1	3.8
no	3	11.5
no policy	1	3.8
not officially	1	3.8
not usually	1	3.8
with ext permission	4	15.4
yes	9	34.6
Total	26	100.0

One of the ‘yes’ responses went on to raise an issue that we might all need to look into, as follows.

“In the case of a hung jury or a failure, each examiner must write a post-examination report for the Dean. These are considered confidential advice

to an official under our Freedom of Information and Protection of Privacy Act and are not released to the student without the writer's permission. (I think we're going to end up in court fairly soon about this one.)”

### Comparison of Canadian and Australian practices

The “Framework for best practice in doctoral examination in Australia” (hereinafter “Framework”) published in August 2005 (DDOGS, 2005) provides an excellent context for comparing the Canadian practices identified from the survey with Australian practice. In many respects relevant for this topic, Australia and Canada represent the closest available comparators. Both countries have relatively small populations spread across large areas, in contrast to the US with a large population in a similar sized area, or the UK with a large population in a small area. The number of universities in each country is relatively small relative to the US and the UK. In the Fall of 2005, Australia’s DDOGS listed 43 members (<http://www.ddogs.edu.au>); Canada’s CAGS listed 48 (<http://www.cags.ca>). In both countries, not all of the universities provide doctoral education. All three of these factors -- population, land area, and number of universities -- have a bearing on the ways in which it might be feasible to examine doctoral theses and/or candidates.

Canada’s overall population is roughly 50% larger than Australia’s -- 32 million in 2005 in contrast with 20 million in Australia. Both, however, are small relative to the US at 295 million, or the UK at 60 million. Population densities for Canada are higher than for Australia (3.6 vs. 2.6 persons per sq. km.), but both are very much lower than in the US or UK (32 and 250 people per sq km respectively). In both Australia and Canada, most of the population lives in a relatively narrow band on the margins of the country. Hence Australia and Canada have similar problems of distance to overcome for personal interaction within the country. Australia has the further problem of large distances to other countries, which Canada does not have. (For comparability, all numbers here were taken in Fall 2005 from <http://www.cia.gov/cia/publications/factbook/index.html>.)

Comparing the survey results with the DDOGS “Framework”, seven topics stand out for discussion. They are

- the number and location of external examiners
- the decision on when a thesis can go to the external examiners
- conflict of interest criteria for external examiners
- the presence or absence of an oral examination
- the inclusion of external examiner(s) in the oral exam
- the role of the supervisor in the oral exam, and

#### *The number and location of external examiners*

The interesting similarity between the two countries is the consistency in calling for more external examiners than are required officially. Canadian universities consistently use one, where none are required by legislation or regulation. DDOGS calls for two or three, where DEST, in the RTS, calls for at least one. The difference is that Canadian universities do not mandate one external to the country, whereas the preamble to the DDOGS document states that the use of examiners from overseas “is

an important means by which the quality of Australian doctoral degrees is benchmarked internationally *and the work of Australian doctoral candidates made known.*" (emphasis added). It may indeed be this latter issue that is the more important at present, and is not so much an issue for Canadian universities, who are less distant from the other English-speaking countries. The survey did not ask further into the nature or location of external examiners, but the Australian rationale is a good argument for drawing on a wider set of examiners than those within a nearby institution.

*The decision on when a thesis can go to the external examiners*

This issue is interesting because it is not mentioned in the DDOGS "Framework." As was indicated in the responses to question 2a above, it is an issue that has caused some difficulty at Canadian universities, and on which practice varies. On the one hand, we do not wish to send out for examination a thesis that does not reflect the university's normal standards. On the other hand, it is the student's thesis. The solution reached by the University of Guelph may be the best available.

*Conflict of interest criteria for external examiners*

This issue is dealt with in the "Framework" under the heading "Conflict of interest in the examination", and emphasizes the relationship between the external and the student. The University of Victoria (in Canada) was the only one to provide further details about the specific criteria in their response to the survey. Their criteria focus as much on the relationship between the external and the student's supervisor as on any relationship with the student. In my own experience at McMaster, it was the supervisor's relationships that were sometimes more problematic. Tinkler and Jackson (Tinkler, 2000) point out how difficult it can be to ensure that there is no relationship between the supervisor and the external given memberships in discipline-based associations and even professional working groups. They discuss this issue in more detail on pp. 67-79 of their book (Tinkler, 2004).

*The presence or absence of an oral examination*

Although the problems of distance were mentioned as a reason for Australia's not holding oral exams, Mullins and Kiley suggest that there is a more fundamental reason not to hold an oral exam, one based on the issue of what exactly is being examined. They identified two different views among experienced examiners on what they were examining (Mullins, 2002).

"One view was that it is the thesis, as a complete and comprehensive document that will remain on the library shelf, that is being examined. The other argument put forward was that it is the student as a potential researcher who is being examined and, therefore, ambiguities and perceived, although not necessarily demonstrated, potential should be teased out and followed up in a discussion with the student."

By the uniform requirement for an oral examination, it seems clear that the Canadian view is that it is the student being examined, although this seems not to have been addressed explicitly.

*The inclusion of external examiner(s) in the oral exam*

The problem of distance for travel for the external to attend a defense is common in Canada, which is no doubt why the responses regarding the external's attendance in

question 10 above were mixed. Of the 25 Canadian universities that stated they require an oral examination, half (13) required the external to attend the oral defence, but only 2 insisted that attendance be in person. All others permitted attendance by telephone or video-conferencing. Given the extent of the country (across six time zones), this seems a sensible way to control travel costs (and time), while still including the external in the defence. There are nine institutions that did not require the external's participation in the defence. McMaster is in this last category, on the grounds that they want the best examiner to read the thesis, regardless of where he or she is located or whether he or she is able to attend the defense.

#### *The role of the supervisor in the oral exam*

The "Framework" is explicit about the supervisor's role: "The supervisor must not be an examiner." This statement appears under the heading for conflict of interest, so one might infer that the supervisor is deemed to have an unavoidable conflict of interest. (This exclusion is also a possible explanation for why there is little emphasis in the "Framework" on conflict of interest between the external and the supervisor.) Practice varies within Canada on the role of the supervisory committee in the exam, but the great majority (16 plus 4 for certain) allow the supervisor to be part of the examining committee, as is clear from the responses to Question 11. The majority of institutions (16) permit all members of the supervisory committee to be part of the oral examining committee. There was not a follow-up question to clarify which individuals were excluded when only one or two of the committee were permitted to participate in the exam.

#### *Conclusion*

The survey of Canadian practices around doctoral examinations has brought out some intriguing differences among institutions in the one country. The DDOGS "Framework" was developed in Australia to try to agree on what constituted best practice, and publicize it among graduate deans. The existence of such a Framework in Australia can serve as an incentive to Canadian institutions to develop similar documents – where agreement can be found. It is intriguing that there has been so little discussion of practices in Canada, given the amount of discussion and publication on the topic in Australia and the UK. Practices in Canadian universities differ in important respects, but each institution can benefit from knowing what the others are doing, and from a discussion of the reasons for the differences in practice.

## **Appendix A**

### **Universities that responded to the survey**

Alberta  
British Columbia  
Calgary  
Carleton  
Concordia  
Dalhousie  
Guelph  
Lakehead  
Laval  
McGill  
McMaster  
Memorial  
Montreal  
Ottawa  
Queen's  
Regina  
Saskatchewan  
Simon Fraser  
Toronto  
Trent  
UNB  
Victoria  
Waterloo  
Western Ontario  
Windsor  
York

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