The Doctoral Dissertation – Purpose, Content, Structure, Assessment

This document was written by a working group of the Canadian Association for Graduate Studies* and is intended to promote and facilitate discussion on the doctoral dissertation of the 21st century among those responsible for or undertaking doctoral education. The outcome of these consultations will help inform the development of a series of recommendations by the working group.

We broadly invite institutions or disciplinary groups to hold consultation discussions on this subject. Please see a Toolkit for Consultation in Appendix C at the end of this document to help with these.

August 30, 2016

*Working group composition:
Susan Porter (co-chair), Dean and Vice Provost, Graduate and Postdoctoral Studies; Clinical Professor, Department of Pathology and Laboratory Medicine, University of British Columbia
Lisa Young (co-chair), Dean and Vice-Provost, Graduate Studies; Professor, Department of Political Science, University of Calgary
Lonnie Aarssen, Professor, Biology Department, Queen’s University
Robert Gibbs, Director of Jackman Humanities Institute; Professor, Department of Philosophy, University of Toronto
Raymond Klein, Professor, Department of Psychology, Dalhousie University
Anthony Paré, Professor and Head, Department of Language and Literacy Education, UBC
Anna Ryoo, PhD student, Department of Curriculum and Pedagogy, UBC
Paula Wood-Adams, Dean of Graduate Studies; Professor, Department of Mechanical & Industrial Engineering, Concordia University
Overview
Shifts in the academy and society over the last few decades have led to a world-wide conversation on rethinking educational approaches to the PhD, with a number of recent meetings, conversations, and papers focused on the future of the dissertation in particular (Council of Graduate Schools, 2016; Institute for the Public Life of Arts and Humanities, McGill University, 2013; Modern Language Association of America, 2014; Patton, 2013; Porter & Phelps, 2014; Smith, 2015). While the themes of increased flexibility with regard to format and content are gaining some traction and/or are being encouraged and implemented institutionally (e.g. UBC Public Scholars Initiative, HASTAC Futures Initiative and City University of New York) there has not been a broad attempt to examine the pedagogical or evaluative principles relevant to a potentially changing scope, or to create parameters or best practices that could guide both students and faculty. It is our intent to help fill that gap through this consultative process.

Background
Any conversation about the form of the doctoral dissertation must be situated in the context of a discussion of the purpose, or purposes, of the PhD. Doctoral education has traditionally been viewed as an apprenticeship with a faculty member towards membership in the ‘guild’ of the professoriate. Given, however, that a minority of current PhD graduates enter the increasingly sparse tenure-track academic job market, that original purpose is insufficient (and, arguably, morally problematic) unless enrolment is drastically reduced.

Graduates make substantial and essential contributions to society in innumerable ways, both within and outside the academy, and the purpose – from a societal perspective – has broadened. Accordingly, there has been an ongoing process of reconsidering the doctoral curriculum and experience to ensure it is relevant to the variety of work graduates will undertake. Several large projects on the subject of doctoral students’ preparation for diverse careers (e.g., Higher Education Commission, 2012; Kemp, 1999; Woodrow Wilson Foundation, 2005) have identified some common employer- and student-identified gaps, including limited skills, understanding, and attitudes relevant to non-academic contexts, and a narrowness of doctoral research. Much change has already taken place; most major universities now offer optional, non-credit professional development offerings relevant to non-academic skills, internships

A wealth of research...[suggests] that nearly half of the students who enter humanities doctoral programs nationally leave without a PhD as a result of becoming disenchanted by the narrowness of their intellectual and social experiences...Even students who finish complain about the lack of integrative professional experiences of collaboration, teamwork, and mentoring (Nerad et al. 2004; Aanerud et al. 2006; Ehrenberg et al. 2009). For these students, the disciplinary apprenticeship model that dominates the humanities is a dead end, regardless of whether too many or too few jobs are available in the guilds after the masters have done their work. The problem with the model is that it casually yet ruthlessly prunes any intellectual, educational, and political capacities or aspirations that do not fit the specific academic-professional trajectories normalized in graduate degree programs.

- Bartha & Burgett (2015), p. 39

[A collection of essays commissioned by the Carnegie Initiative on the Doctorate] converged on a number of trends: a move toward greater interdisciplinarity and interaction with neighboring disciplines; growing commitment to team work...; and greater purposefulness in reaching out to partners and audiences outside of academe in ways that connect academic work with the larger social context. Many of the authors talk as well about...the need for more flexible, integrated conceptions of scholarly work...


The sin is that people get the impression that going narrow and deep is the essence of the doctorate, but the essence is really trying to be critical and original...We need people who are intellectually adventurous.

in non-academic environments are more common, and industrial and practice-based PhDs are increasingly prevalent in some parts of the world. A broadening conception of the core of the PhD program – the research and the dissertation – is beginning to be seen, as is a reconsideration of the sole apprenticeship model.

Attributes important for students’ future scholarship are often developed in isolation from the major intellectual work of the student’s program, but increasingly, the value of integrating such development within the student’s field and/or research is seen as valuable. Integration can occur through coursework, the work leading to a comprehensive exam, experiential opportunities, and the dissertation itself. Only some of these approaches allow assessment of the rigour and effectiveness of the student’s work in the context of their scholarly development, however, and only some involve meaningful scholarship.

The dissertation associated with the traditional academic vocational view is inherently conservative; the apprentice’s mode of research should resemble that of the supervisor’s, and the dissertation should be similar in form and scope to that completed by the supervisor. In most (but not all) cases, it follows that the goal of the dissertation research is to discover or synthesize knowledge in a way that other academics may critique and build upon. It also follows that in some disciplines, the dissertation should take the form of a first draft of a scholarly monograph; in others, the dissertation may take the form of a series of related published or publishable academic journal articles. The primary audience for the dissertation, in this view, is the scholarly community, and the objective and the standard by which the dissertation is judged is that of the scholarly literature.

The work most PhD graduates undertake, whether in or out of the academy, is scholarly, in that word’s broadest definition (Walker et al, 2008). In contrast to expected student trajectories in the traditional view, however, graduates’ scholarship may differ substantially from that of their supervisor - it may be solely focused on teaching, or involve work that is interdisciplinary, collaborative, application-oriented and/or problem-driven. These forms of scholarship can be said to be encompassed within the same paradigms of scholarship advocated by Ernest Boyer and many others to be given equal value in the academy (see sidebar), as a means of ensuring the university’s vitality, worth, and relevance. They are therefore, arguably, legitimate approaches to dissertation research; that is, even in disciplines where these forms of scholarship may be somewhat foreign (or perhaps unrewarded), the dissertation could reflect the scholarship of application, engagement, and of teaching and learning, in addition to the traditional modes of discovery and integration. As the approaches, audiences, and

---

1 Categories and quotes from Boyer, 1990. Boyer’s original category of ‘teaching’ was extended in later years to ‘teaching and learning’, and also to ‘sharing knowledge’. The scholarship of engagement is often an additional category, although it can be viewed as any of the forms carried out in a reciprocal partnership between the university and society.

2 This view is reflected in the Council of Graduate School’s policy statement on the purpose of a PhD: ‘The Doctor of Philosophy program is designed to prepare a student to become a scholar: that is, to discover, integrate, and apply knowledge, as well as to communicate and disseminate it...’ (Council of Graduate Schools, 2005, p. 1)
collaborators may differ in the more applied or pedagogical forms of scholarship, so would the dissertation structure and content. In particular, the scholarly products produced through these diverse forms of scholarship may also extend beyond the typical ones associated with discovery research.

Apart from the doctoral career perspective, other arguments have also been made for a more capacious view of dissertation research. Students themselves have indicated a desire to connect their research to society’s challenges (Cherwitz et al, 2003; Jaeger et al, 2014; Phelps, 2013; Walker et al, 2008); engaged or applied research can validate and improve the quality of new knowledge; and collaborative, engaged, and interdisciplinary work is necessary to address the world’s most pressing problems. There may also be ethical imperatives in research involving partners (whether communities, institutions, or individual human participants) to disseminate and/or validate findings in modes that differ from the usual academic ones; students need to learn these skills and should arguably be assessed on their merit.

Any view of the purpose of the PhD encompasses the notion that doctoral study must prepare students to carry out rigorous research that makes a significant and original contribution to knowledge, to have a breadth and depth of understanding of their field(s), to have strong critical and analytical thinking abilities, to be able to communicate their research appropriately, and to be able to ask important research questions. The challenge for supervisors, examination committees, and all those involved in graduate education is to find ways to allow (or even encourage) the inclusion of diverse forms of scholarship and scholarly products in the dissertation, while ensuring the rigour of the research.

### The Current State

**Content:** There are no current universally-accepted definitions of the content or scope of a PhD dissertation, although the following types of descriptors are commonly used: ‘product of substantial research and scholarship’ (University of Michigan); ‘should make an original contribution to knowledge’ (Yale University). Many, but not all, universities also indicate that the dissertation should have a unified focus: ‘it is expected that a dissertation will have a single topic, however broadly defined, and that all parts of the dissertation will be interrelated’ (Yale University); ‘All components must be integrated into a cohesive unit...providing a cohesive, unitary focus, documenting a single program of research.’ (McGill University).

For traditional forms of scholarship (discovery in particular), faculty have fairly common views of what would be considered ‘original’, or what constitutes new, meaningful ‘knowledge’. For other forms of scholarship, some definitions or characteristics of these and related concepts have been developed (see sidebar).

---

**CHARACTERISTICS OF KNOWLEDGE, ORIGINALITY**

**New knowledge should:**
- contribute to the shared store of knowledge in a general sense
  - generating ‘culturally novel apprehensions that are not just novel to the creator or individual observers of an artifact’
  - leading to understandings that are transferable
- be shared
- be testable and/or amenable to criticism

**Originality (some suggested qualities):**
- contributes to new understanding in topic, in method, in experimental design, in theoretic synthesis, or engagement with conceptual issues
- contains innovation, speculation, imaginative reconstruction, cognitive excitement

---

3 See for example, Scrivener, 2002; Candy, 2006; and Winter et al, 2000
Form: The academic monograph form was the norm throughout much of the history of the modern PhD; it is now common in many disciplines, however, to allow published or draft academic manuscripts to comprise much of the dissertation, usually accompanied by a unified scholarly introduction and conclusion. In some fields, it is increasingly common to include other scholarly products, including digital material (e.g., videos, websites) or creative products (e.g., novels, artwork). Although not yet common, there have also been examples of dissertations composed wholly in non-traditional forms, e.g., as a comic-book (Mulhere, 2015) or novel (Williamson, 2016), or in the Indigenous oral tradition (Hutchinson, 2015).

See Appendix A for other examples of dissertations that are non-traditional either in content and/or form.

Assessment: The types of scholarship where non-traditional products are common, and central to the dissertation work, include practice-based or practice-led research, action research, and creative practice research. These fields have developed some guidelines around the scholarly analysis, or exegesis, that normally accompanies the products. Such analysis has been recommended to include a description of the intended audience, the situating of the product and its processes within a discipline or field, an explanation of its significance and originality, and a narrative of the intellectual processes that led to its creation (Candy, 2006; Winter et al, 2000; Elison and Eatman, 2008).

Since Boyer’s delineation of alternative forms of scholarship, and in those disciplines where these alternative forms are common, much work has gone into identifying common standards of rigour to which all forms of scholarship should be held accountable. Very broad conversations across the US in the 1990’s (Glassick, 1997) resulted in the set of criteria listed in the sidebar. They continue to be used (with some modification) in the assessment of scholarship for tenure and promotion processes in many institutions.

**STANDARDS OF EXCELLENCE FOR ALL FORMS OF SCHOLARSHIP**

**Clear goals**
- The scholar states the purposes of the work clearly, defines objectives that are realistic and achievable, and identifies important questions.

**Adequate Preparation**
- The scholar demonstrates an understanding of the relevant existing scholarship, and brings the necessary skills and resources to the work.

**Appropriate Methods**
- The scholar uses methods appropriate to the goals, applies them effectively, and modifies procedures in response to changing circumstances.

**Significant Results**
- The scholar achieves the goals. The work adds consequentially to the field and opens up additional areas for further exploration.

**Effective Presentation**
- The scholar uses a suitable style and effective organization to present the work, and uses appropriate forums for communicating work to its intended audiences. The message is presented with clarity and integrity.

**Reflective Critique**
- The scholar critically evaluates his/her own work, brings an appropriate breadth of evidence to the critique, and uses evaluation to improve the quality of future work.
Questions for Discussion

Section I: Dissertation Content
A. Must/should the dissertation represent a unified program of research, or is it acceptable to include loosely related but separate studies? How does the intellectual development stemming from an exploration of a single subject compare with that of several loosely related or unrelated subjects?
B. What are the acceptable forms of scholarship in a dissertation? E.g. Is it acceptable in the humanities or basic sciences to investigate the application of knowledge, or the identification of new knowledge in a non-academic setting? To engage the public around a text (humanities) or policy? Is it acceptable to focus on the scholarship of teaching and learning in a non-Education discipline?
C. How should the boundaries of acceptable scholarship be determined? Are there identifiable criteria for making the determination? If so, what are they?
D. Who should determine these boundaries? Is this the domain of a central university authority (Senate, Faculty of Graduate Studies), the disciplinary group offering the graduate program? The supervisory committee?

Section II: Dissertation Form
A. What, other than traditional scholarly text, can be included in a dissertation? Should/could creative works (art, film), lay communication materials, policy papers, websites, syllabi, museum curation material, consulting reports, business plans or other elements be included and assessed as integral parts of the dissertation?
B. When non-traditional elements are included, do they need to be placed within a scholarly context? Is a critical analysis and/or interpretation required?
C. How should the boundaries of what is acceptable for inclusion be determined? Are there identifiable criteria for making the determination? If so, what are they?
D. Who should determine these boundaries? Is this the domain of a central university authority (Senate, Faculty of Graduate Studies), the disciplinary group offering the graduate program? The supervisory committee?

Section III: Dissertation Evaluation
A. What policies or practices should be in place to ensure quality and rigor? Should all work be assessed by those with appropriate expertise, if that means including practitioners without a PhD, or scholars from other disciplines on the supervisory and/or examination committee?
B. What standards should be used to assess the quality and rigor of non-traditional forms of scholarship and associated elements of the dissertation? Do the Glassick criteria (p. 5) address the main aspects?
C. Who should determine the standards and policies? Is this the domain of a central university authority (Senate, Faculty of Graduate Studies), the disciplinary group offering the graduate program? The supervisory committee?

Section IV: Concerns, Barriers, Opportunities, and Recommendations
A. What are your primary concerns about increased flexibility in doctoral dissertations? (see Appendix B for frequently cited concerns)
B. If you are generally supportive of the trend towards increased flexibility, what do you feel are the major barriers to enabling that to happen? What means might you suggest to reduce those barriers; what are potential opportunities to help facilitate the trend? What recommendations in particular would you make?
References


Appendices

A - Examples

Non-traditional format/style of a dissertation; novel methodology (Educational Studies):

Hilda Doolittle (1886-1961), the American poet known as H.D., was a key figure in and founding member of the Imagist Movement, along with poets Ezra Pound and Richard Aldington. She was a prolific poet, and wrote extensively *about* poetry, as well. Charlotte Hussey, a Montreal-based poet, wrote this dissertation about the process of composing poetry by using herself as the unit of analysis and by analyzing and interpreting that process in H.D.’s Imagist framework.

What makes the dissertation unusual is its structure as a set of letters between Hussey and H.D., whose letters were written by Hussey based on Doolittle’s theories about poetry and the poetic imagination. In her own letters, Hussey sent draft poems to H.D., explaining their origins in memory, dream, and imagination, and H.D.’s responses drew on her own poetry, her theories of poetics, and the work of Pound and other Imagists. Occasionally, Hussey introduces “Dear Reader” letters, which offer a form of meta-analysis of the whole project.

In a very real sense, the dissertation reports on an experiment that blends the analytic with the poetic, the rhetorical with the literary. Though based deeply in scholarly texts, it is also suffused with poetry, and the resulting text traces the creative process from seed to flower.

Charlotte is currently a poet, creativity coach, and college/university lecturer in writing and literature.

Applied scholarship in a field normally dominated by discovery research (Pathology):
Jennifer Won (2015) *Clinical performance of diagnostic, prognostic and predictive immunohistochemical biomarkers for hormone receptor-negative breast cancer*. UBC. This dissertation starts with the development of a set of biomarkers that are unique to an aggressive form of cancer that is currently poorly diagnosed (and therefore suboptimally treated). Rather than doing further studies on the biology of the cancer, Jennifer chose to conduct a study more aligned with her career goals: she partnered with a starting non-profit group to assess whether Canadian hospital labs were able to use these biomarkers correctly in real life settings. She found the laboratories were not able to use the original markers consistently, so she tried a simpler, second set which was more successful. She continued to work with the labs to to assist with technical problems, and generally to raise awareness about the issue.

Although the content was unusual in her disciplinary context, the format of Jennifer’s dissertation was traditional, as she described the applied work in a scholarly framework with relevant background and analysis. Scholarly products that were critical to her methodology and to the success of the project, but which were not incorporated into the dissertation or assessed directly, included correspondence with and reports to the labs, other communications and press releases (to raise awareness), as well as a business plan for the non-profit. Jennifer would have appreciated their inclusion in the dissertation, to have them acknowledged and to benefit from feedback on them.

While completing her degree, Jennifer was hired as the first scientific director of the organization.
The scholarship of teaching and learning in a field dominated by discovery research (Zoology):
Laura Melissa Guzman’s dissertation research in Zoology (UBC) is primarily focused on the ecology of bromeliads. As part of her research, she has become very adept at statistical computing. As a TA in a 4th year Ecological Methodology course, Melissa noted along with the instructor several deficiencies in the way statistics was taught, and together they created and implemented a revised curriculum that took into account cognitive load theory and associated designs and procedures. Melissa will conduct an analysis of student learning of the revised curriculum, and based on the results, will design and assess a fuller curriculum for that and an additional course. The work should be transferrable to many subjects and contexts, and is planned to be written and published as a scholarly paper and included as a chapter in her dissertation.

Non-traditional format of dissertation; the scholarship of engagement in a field dominated by the scholarship of discovery and integration (English):
Amanda Visconti (2015) "How can you love a work if you don’t know it?": Critical code and design toward participatory digital editions. University of Maryland. This digital humanities dissertation is focused on an interactive (participatory) website on James Joyce’s Ulysses called Infinite Ulysses. Amanda designed and coded the website, conducted user testing, and analyzed usage data. The fully online dissertation consists of the abstract; a link to the Infinite Ulysses website; a 123 page ‘whitepaper’ that describes and analyzes the work, and synthesizes and adds to scholarly thinking on the public humanities; a set of research blog posts, a public repository of design and code; a description of the methodology; and acknowledgements.

The dissertation won the University of Maryland’s Distinguished Dissertation Prize. Amanda is currently an Assistant Professor at Purdue University.

Non-traditional/creative format of dissertation (Visual Art and Education);
Marta Madrid-Manrique. (2014). Creating audiovisual participatory narratives: A/r/tography and inclusivity. University of Granada, Spain. This dissertation research investigates the use of participatory art to address educational problems, and in particular to assess whether such engagement enhances a sense of inclusivity among those with diverse experiences including disabilities, different cultures and languages, and social difficulties.

The overall structure of the dissertation was traditional, and included an abstract, a theoretical framework, a description of the research methodology and results, and an interpretation and conclusion. The format was highly unusual, however: It was published online in three volumes similar to a graphic novel trilogy, it incorporated many forms of visual data (including photos and watercolour illustrations) and was in part presented in the forms of a comic book, graphic novel, and story book. These forms were in themselves a research experiment, to assess mechanisms to convey research findings in a manner that preserved anonymity and confidentiality and which enrich academic narratives with graphic allegories.

Marta is a graphic artist, and teaches in postsecondary institutions.
### Concerns and Responses to Diversifying Doctoral Scholarship and Dissertations

<table>
<thead>
<tr>
<th>Concern</th>
<th>Responses</th>
</tr>
</thead>
</table>
| **Students won’t get academic jobs / academic jobs are what most students want / academic placement is a positive metric for program quality** | - This is not for everyone; it’s about what’s acceptable for those who desire it – students should be fully aware of the purpose and potential risks of non-traditional scholarship  
- Many students don’t want academic jobs  
- The academy is changing in many fields, with non-traditional scholarship becoming more common  
- Non-traditional scholarship includes teaching – incorporation of teaching scholarship into the dissertation may make candidates more competitive in higher education  
- One has to start somewhere or it will never change  
- Non-academic careers are increasingly not viewed as second-class; quite the contrary for many outcomes |
| **In some fields, the issue is really just political – we need more tenure-track faculty; the PhD should still be oriented to that end** | - It’s unlikely a significant change will occur, at least not to the point where all PhD graduates would get tenure-track positions  
- PhD graduates do contribute meaningfully in the teaching or non-academic world |
| **Faculty need the labour on discovery research projects; non-traditional scholarship potentially devalues and may reduce the prevalence of basic research** | - Non-traditional or applied scholarship is not for everyone  
- Discovery research can be extended, improved, and validated through application or knowledge exchange  
- Granting agencies are increasingly interested in impact  
- It is arguably an ethical issue if students’ needs are not taken into account; the university is in the business of education |
| **This is diluting the PhD - ie, this does not represent rigorous ‘real’ research; the products are not suitable** | - Each realm of scholarship can (and must be) rigorous, with standard criteria for assessment  
- Students’ intellectual development can be made significantly richer through employing different approaches, disciplinary lenses, etc |
| **If they get an academic job, they won’t be able to transform their dissertation to a book (humanities)** | - Academic publishing is in major shift – it is not a given that a monograph will translate to book |
| **External examiners won’t approve non-traditional dissertations** | - There is a need to change culture, and make a legitimate case |
| **We should be encouraging the development of professional doctorates rather than applied** | - That is relevant for some sectors, but not all  
- The varied forms of scholarship are worthy of |
<table>
<thead>
<tr>
<th>PhDs</th>
<th>highest degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty don’t know how to mentor alternative forms</td>
<td>- Should include external professionals/scholars as mentors, on committees, examiners</td>
</tr>
<tr>
<td>Applied research ‘sells out’ to the world’s values</td>
<td>- Collaboration can influence the world’s values and elicit positive change.</td>
</tr>
<tr>
<td>It’s not necessary to re-envision the dissertation – just provide professional skills training</td>
<td>- Those can be good and necessary, but: didactic training is often decontextualized, doesn’t necessary allow development of intellectual breadth, attitudes, insight, understanding relative to context and core intellectual development - Internships etc are often outside of intellectual area, and are not assessed or valued as part of degree - Rigorous, non-traditional scholarship can improve the quality of knowledge, and make an impact in the world</td>
</tr>
<tr>
<td>We shouldn’t admit students who don’t want academic track</td>
<td>- That would exclude the majority in most disciplines - Incoming students don’t often know what they want as a career path - PhD graduates contribute substantially to society in many ways</td>
</tr>
<tr>
<td>Students won’t get scholarship funding if student’s research is non-traditional</td>
<td>- Funding agencies are very interested in impact; research still has to be rigorous</td>
</tr>
<tr>
<td>Promotion and tenure have not caught up – faculty don’t get credit for non-traditional scholarship</td>
<td>- It is changing (slowly), and should be addressed in parallel - It is important work of the university</td>
</tr>
</tbody>
</table>

**C – Toolkit for Consultation**

This Consultation Document is intended to form the basis for conversations about the future of the dissertation at Canadian universities. Any organization or group, including Faculties/Schools of Graduate Studies, graduate programs, graduate students’ organizations or disciplinary associations, are invited to host conversations about the future of the dissertation, using the Consultation Document as a basis. If you are interested in leading a discussion, please let Sally Rutherford in CAGS know [], and if you are at the same university or general location as one of the task force members, please coordinate with them.

The task force has no set guidelines for the format or make-up of the consultation meetings. We believe that both disciplinary and multi-disciplinary meetings are helpful; and the presence of students is encouraged. There may also be benefit in holding student-only or faculty-only discussions. If there is an opportunity to collaborate with another institution in the same geographic area, that is encouraged. When organizing the consultation, please consider the following:

- Please let Sally Rutherford (phd-doctorat@cags.ca) know in advance if you wish to lead a discussion.
- Consider who is to be invited to the consultation - Faculty? Students? Other interested parties?
Please distribute the Consultation Paper to participants in advance. Is there any other material that is relevant for your group that should also be distributed?

If the group is fairly large (more than 10-15), we recommend incorporating smaller break-out sessions, with the smaller groups reporting back to the larger group.

Identify one individual to chair the session, and leads for each small group.

Identify individuals to serve as note-takers for each small group, and one for the larger group.

We recommend that you set aside at least 2 hours for the discussion.

**Holding the Consultation**

- To start the conversation, it would be helpful to give a short presentation outlining the issues.
- It may also be helpful to have a general discussion about the ideas before addressing the individual questions. As much as possible, however, we would appreciate that the specific questions be addressed during the consultation.
- Before any break-out sessions, consider asking participants to make notes on their perspective.
- Be sure that note takers provide summaries of the discussions to the lead.
- You are welcome to record the sessions, and to submit the recordings to Sally Rutherford (phd-doctorat@cags.ca) for transcription and/or summary.

**Reporting Back**

- Please submit your notes and/or recording to Sally Rutherford (phd-doctorat@cags.ca) with a description of the consultation group.

The report summarizing these findings with recommendations going forward will be made broadly available in 2017.