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ARTIFACTS OR CATALYSTS? MOVING DOCTORAL DISSERTATIONS FROM THE SHELF TO THE COMMUNITY

Lucyna M. Lach, Sacha Bailey, Aline Bogossian, and David Rothwell

Introduction

Social workers have a decided professional and ethical commitment to the pursuit of social justice. Those who engage in obtaining a doctoral degree in social work have a particularly unique relationship with this commitment that is qualitatively different from those who do not pursue this degree. At some point, they must grapple with this difference and answer the question about the relationship between their scholarly pursuit and the pursuit of social justice. In other words, they must reflect on how the knowledge generated from their research will contribute to and influence existing practice guidelines, future research, and policies that will benefit target populations. If one accepts that this is indeed the case, then one may assume that the knowledge gap fulfilled by a doctoral dissertation should have some kind of catalytic quality that informs the social justice mission (IFSW, 2014). At a minimum, the social work doctoral dissertation, as the culmination of a student's scholarly work, should demonstrate the writer's ability to conduct independent research and to make an important and unique contribution to existing knowledge and practice (Rothwell, Lach, Blumenthal, Akesson, 2015). While rates of successful degree completion may address the former, evidence of the latter is more questionable. We know very little about the extent to which social work doctoral research is published beyond the dissertation, what the impact of doctoral research is, and how it contributes to social work knowledge and practice (Maynard et al., 2012).

The purpose of this chapter is twofold: to describe the extent to which Canadian social work doctoral dissertations contribute to other forms of knowledge beyond the dissertation itself (i.e. publication and dissemination); and to prescribe two methods for ensuring that doctoral research moves beyond the proverbial 'shelf' using a manuscript-based thesis method and a community-based knowledge mobilization exercise.

Knowledge mobilization: the thesis and beyond

The written thesis is a manuscript that provides evidence of the doctoral student's integration of existing theoretical and empirical knowledge and, in most cases, the student's capacity to independently implement a research project and analyze and write up the data. Discussion should

generate a coherent reflection on the extent to which results have contributed to what was previously understood or known. Until recently, this was good enough. However, Tri-Council funding agencies, a major source of research funding for postsecondary institutions in Canada (e.g. Social Sciences and Humanities Research Council [SSHRC] and the Canadian Institutes for Health Research [CIHR]) have increasingly placed emphasis on demonstrating the proposed 'impact' of knowledge generated from publicly funded research. This imperative applies not only to established social work scholars but also to doctoral students who are required in their applications for funding to articulate how the knowledge that they generate will be transformative or catalytic.

To place this in context, Canada has been an international pioneer in the field of knowledge mobilization (KMb) (Graham et al., 2006), leading the health and social science community to reflect on how it moves knowledge into action. As an applied discipline, social work KMb activities translate research knowledge to help stakeholders make sense of new information in their real-world application, and help them apply that knowledge in their practice with individuals, groups, and families, or at macro program and policy levels. This is entirely consistent with the social justice mandate of social work.

We were interested in learning how findings from social work doctoral dissertations were being developed as KMb activities, such as publication in peer-reviewed journals; books and book chapters; presentations at conferences and community-based workshops; dissemination of research briefs through social media or on websites; community outreach; and the education of the next generation of social workers. In order to answer this question, we conducted an environmental scan (Abels, 2002; Choo, 2001) of the KMb activities of Canadian doctoral dissertations.

Using our initial dataset of $n = 248$ social work dissertations published between 2001 and 2011 (Rothwell, Lach, & Blumenthal, 2013), we updated the dataset to include dissertations published until February 2015.¹ In order to trace KMb activities, we drew a stratified random sample by research method (qualitative study, quantitative study, mixed method study), selecting 20% of dissertations per stratum. The sample resulted in 39 qualitative studies, 9 quantitative studies, and 10 mixed methods studies, for a total stratified random sample of 58 studies. See Figure 29.1, representing our decision tree.

Data collection: tracing KMb activities

In order to trace KMb activities, we examined the CVs of doctoral scholars through a combined Internet search along with attempts to directly contact authors. Two research assistants searched for KMb activities including peer-reviewed publications (national and international), professional periodical publications, full books, book chapters, information sheets, research summaries, reports, manuals, presentations at peer-reviewed conferences (provincial, national, and international), other presentations, and/or other media activity. The initial search was conducted in Google Scholar, where the name of the author was entered and online CVs or any references that could be related to the dissertation topic were collected and entered into an electronic database. A second search was conducted in the websites Academia.edu and ResearchGate. Third, we searched for online CVs on university websites. Finally, we emailed authors directly to request information about the KMb activities linked to their doctoral research.

Tracking authors and obtaining full CVs

Of our stratified random sample of 58 dissertations published between the years 2001 and 2015, 25 (43%) full CVs were either available online or obtained through direct contact with

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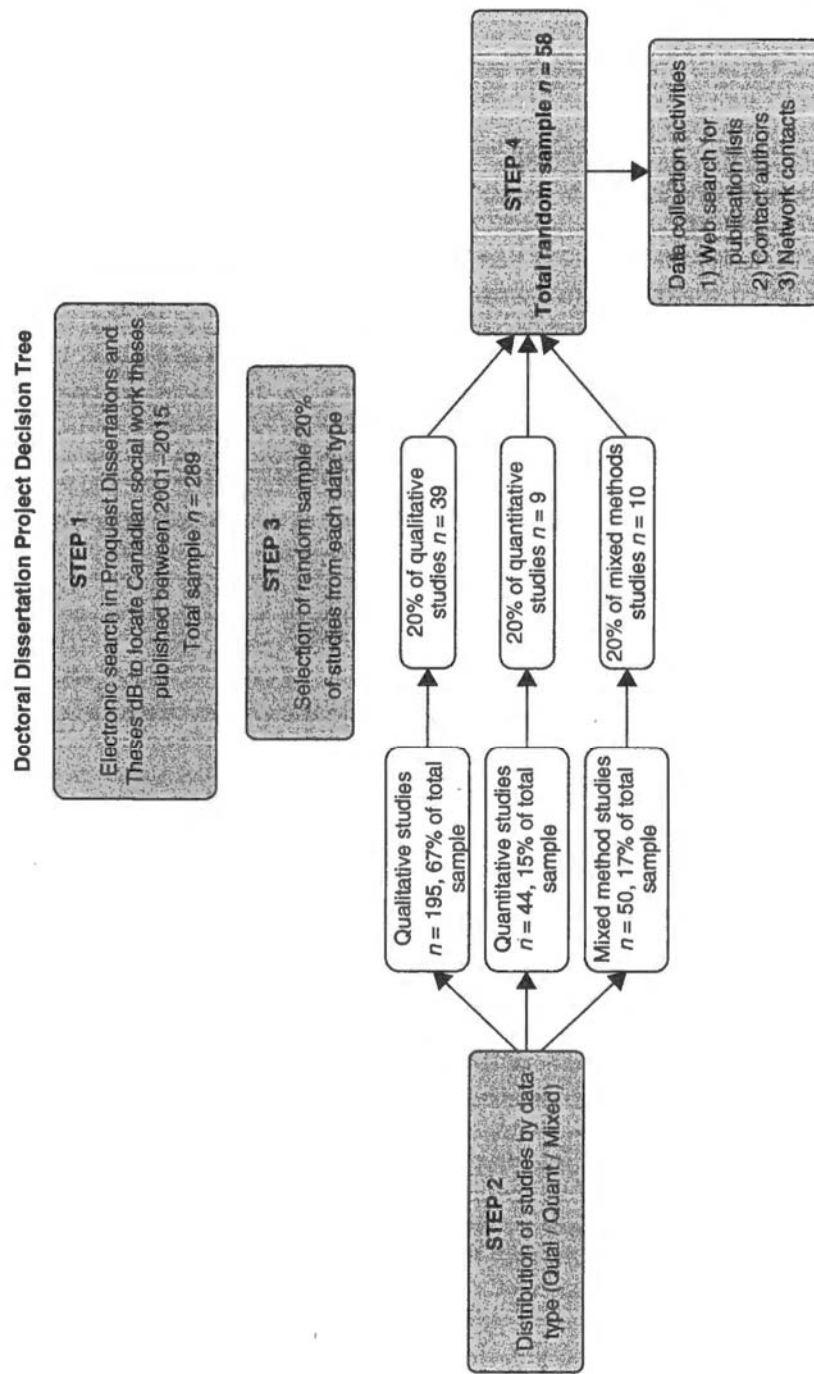


Figure 29.1 Doctoral dissertation project decision tree

authors. Of the remaining studies, in 25 (43%) cases, partial CVs were located but no response was received to email correspondence with authors requesting their full CV and a list of KMb activities, and in 8 (14%) cases, authors did not have a web presence and did not respond to email correspondence. Therefore, 57% of social work doctoral dissertation graduates *did not* have adequate Internet presence to be able to generate an online representation of their work.

Knowledge mobilization activities

Doctoral graduates who engaged in traceable KMb activities produced a total of 158 activities. Of the traditional KMb activities, $n = 37$ (23%) were in peer-reviewed publications, $n = 20$ (12%) were book chapters, $n = 5$ (3%) were books, $n = 4$ (2%) were in professional periodicals, and $n = 52$ (32%) were presentations at peer-reviewed conferences (provincial, national, and international). Other KMb activities included invited presentations ($n = 12$, 7%), other media (e.g. radio) ($n = 13$, 8%) and, finally, publication of information sheets resulting in 15 traceable activities (9%).

Limitations, challenges, and lessons learned

The environmental scan of KMb activities of social work doctoral graduates provided fodder for reflection but was not without its limitations or challenges. For instance, our KMb data collection method gave primacy to a web-based search that raised the possibility of missing other legitimate and important KMb activities. As a result, we are wary of misrepresenting or underestimating the productivity of Canadian social work doctoral graduates. While it was not within the scope of our study, our environmental scan revealed that several social work doctoral graduates have been very productive in topic areas outside of the dissertation topic, including in the content areas of social work pedagogy and research methodology. These products were not captured in our search. Moreover, our email exchange with a few colleagues revealed that our search missed other important forms of KMb such as how findings influenced changes to BSW and MSW curricula, practice, and policy. Also, because we examined solely those doctoral dissertations that had been uploaded to the ProQuest Dissertations and Theses database, it is likely that we missed theses that did not appear in ProQuest.

Online presence of social work doctoral graduates

A striking finding of our search revealed that the online professional presence of Canadian social work doctoral graduates was surprisingly low. Forty-three percent (43%) of doctoral graduates had partial or select information posted on university sites, while fourteen percent (14%) were not traceable online.

KMb activities reported on CVs, university websites, and other academic websites (such as Academia.edu and ResearchGate) tend to be peer-reviewed publications, presentations at peer-reviewed conferences, books, and book chapters. It is more difficult to locate information on other sources of doctoral research dissemination conducted in less formalized settings. This may lead to the skewed impression that social work research is primarily relegated to academia and has little presence in non-academic/practice settings. For example, the few qualitative comments emerging from email exchanges with social work colleagues from our sample highlighted how social work dissertation findings were used to inform direct clinical practice and were translated into standardized programs for social work with a target population. Our search strategy would not have picked those up. Others self-reported how their doctoral

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research methods training that led to the completion of their dissertation also informed robust and funded research projects subsequent to graduation. Finally, doctoral research had informed curriculum development, teaching training, and pedagogical mentoring.

What can help improve knowledge mobilization activities?

Why do some social work doctoral graduates consistently and routinely publish from their dissertation while others do not? Part of the answer is associated with an institutional or disciplinary culture that promotes and supports research dissemination. Indeed, assistance, information, and encouragement from a supervisor or committee chair has been associated with consistent publication practices; the absence of an institutional strategy, policy, or support for the dissemination of research has been found to make a successful dissemination record a "hit or miss affair" (Dinham & Scott, 2001). The publication culture of a discipline has also been associated with increased confidence and propensity to publish. For instance, a comparison of the experiences of doctoral students in the sciences versus those in education revealed contrasting patterns, writing cultures, and expectations between the fields (Kamler, 2008). For science students, writing and publishing early and in international refereed journals, before the finished dissertation, is an expectation of the field, while in education it is not. An analysis of supervision practices and institutional supports available to supervisors and doctoral students might help us to answer this question.

Using a manuscript-based approach for the social work dissertation

Drawing from the field of science, one innovative way to move social work doctoral research from the 'research lab' to the field is for students to consider an alternate dissertation format. We provide a rationale and discuss the benefits and inherent challenges for making the switch from the traditional monograph thesis to the multi-article manuscript as a means for increasing the rapid visibility of doctoral research findings.

Moving the doctoral student from novice writer to published author

Doctoral students, particularly those interested in remaining in academia, are strongly encouraged to publish their research whilst completing their degree, as doing so demonstrates their potential to become productive scholars and to write successfully for an academic audience; this places them at a competitive advantage when applying for a tenured academic position. In a study of Canadian social work doctoral dissertations, 40% of students had publications or presentations relating to their dissertation research prior to completion of their degree (Rothwell et al., 2015). These findings demonstrate the motivation of doctoral students to establish themselves as scholars, their desire to move their work into the field, and the commitment and support from supervisors to ensure student publication activity. The journey to successfully establish oneself as an independent and prospectively productive academic can be positively or negatively influenced by a mix of variables, including the writing/publication culture of a given discipline, student interest and readiness to publish, opportunities for student involvement in research projects, and the ability of supervisors or other mentors to afford students with training and co-authorship opportunities. The novice doctoral student writer may feel untrained to embark on the peer review process, especially when he or she has not completed enough independent work to publish as a sole author. Opportunities to publish in a supported environment through collaborations with supervisors, committee members, and other academics with whom

they may be connected through research assistantships may be helpful to launch these students. If conducted equitably, the importance of these collaborations to launch one's career cannot be understated. In the absence of previously published work, doctoral students rely on their dissertation to demonstrate their ability to make an important and unique contribution to existing knowledge in their particular area of study. The majority of students fulfill this requirement by submitting a traditional dissertation in the monograph format. Those who later wish to publish their findings will traditionally do so in the form of a book or by reformatting sections of the thesis for article submissions to peer-reviewed journals.

An alternative format to the traditional dissertation is the manuscript-based dissertation, which offers students the opportunity to purposefully write for scholarly publication. A manuscript-based dissertation is comprised of a collection of thesis chapters that have either been submitted or will be submitted for publication, formatted according to the manuscript thesis requirements. Referred to as an article-based dissertation/thesis, publication-based dissertation/thesis, thesis by publication, multi-paper format, or compilation thesis, this format has been most frequently employed in the natural, medical, and engineering sciences, where emphasis is placed on a quick turnaround of scientific findings which could potentially inform or advance the field. The practice is less common in social sciences and humanities disciplines, where there is a long-standing tradition of employing the standard monograph format and where students are encouraged to publish books from their findings.

Doctoral students in Canadian schools of social work have not yet embraced the manuscript-based dissertation. In our review of Canadian social work dissertations published between 2001 and 2015, only 5 out of 293 were located in ProQuest as having been manuscript-based. One was published in 2008 (McGill University), two were published in 2009 (UdeM and University of Windsor), and another two were published in the years 2013 and 2014, respectively (McGill University). Yet, there are a number of reasons to choose this format over the traditional dissertation. First, this method facilitates the dissemination of knowledge and ensures that the knowledge generated through the dissertation is disseminated in a timely manner. In doing so, the student researcher gets a head start in developing an academic profile. Second, the production of the manuscript-based thesis offers training opportunities. By gearing their writing for publication rather than institutional requirements for dissertation writing, students become familiar with the format, expectations, and processes of peer-reviewed publication. Engagement with this process provides multiple direct and indirect benefits that will be invaluable in the student's future. Benefits include learning the rules of article submission, learning to communicate with an editorial board, and engagement with the revision process, which will help prepare students for productivity requirements in academe. Third, production of the manuscript-based thesis allows students to write as they go, which may prove to be more manageable and specific. In this way, students may contribute to different aspects of the field, both in terms of substantive knowledge through a comprehensive literature review or dissemination of partial findings, as well as by writing about novel research approaches, research protocols, and commentaries. Doing so may result in their work reaching a wider audience than can be achieved through the publication of a book or the publication of research findings alone. Finally, and most importantly, the demonstration of productivity and the dissemination of one's work in this way will provide the student with greater exposure, which may in turn facilitate or increase the student's ability to procure research grants or a position within academia.

Canadian universities typically provide guidelines for the production of the manuscript-based thesis. For example, the dissertation requirements of McGill University stipulate that the dissertation must 1) constitute original scholarship and be a distinct contribution to knowledge;

2) demonstrate out research, or 3) clearly demonstrate in compliance public domain, which it is proposed to the required guidelines requirements via the guidelines on those manuscript thesis stipulations on those manuscript author of the dissertation around authors' collection of manuscript piece of work, d [www.mcgill.ca

A sample outline of research is offered

- Chapter 1: Introduction
- Chapter 2: Literature review with Neur
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- Chapter 5: Discussion

The introduction provides background to the study. This article fulfills a relevant literature review. This article provides an account of the dissertation's empirical study underpinning the publication format of the target journal. The introduction presents an overview and conclusion. The introduction informs the next section. The introduction provides the rationale for the study. The introduction flows from the previous section (for example) that provides the rationale for publication in

2) demonstrate familiarity with previous work in the field and an ability to plan and carry out research, organize results, and defend the approach and conclusions in a scholarly manner; 3) clearly demonstrate how the research advances knowledge in the field; and 4) be written in compliance with norms for academic and scholarly expression and for publication in the public domain, and that the research itself meets the current standard of the discipline within which it is produced [www.mcgill.ca/gps/thesis/guidelines/general-requirements]. In addition to the requirements for the production of the traditional thesis, many universities have developed guidelines that specifically apply to the manuscript-based dissertation format. As these requirements vary from one institution to the next, students must familiarize themselves with the guidelines of their own university. For instance, McGill University's guidelines for the manuscript thesis stipulate that it can include the text of one or more manuscripts and that co-authors on those manuscripts may comprise other students, research partners, or academics, though the author of the dissertation must be the primary author for all manuscripts. In addition to rules around authorship, McGill's guidelines stipulate that the dissertation must not be formatted as a collection of manuscripts. Instead, the manuscript-based thesis must be presented as a cohesive piece of work, documenting a single program of research, with connecting text between articles [www.mcgill.ca/gps/thesis/guidelines/preparation].

A sample outline developed by the second author of this chapter (SB) for her dissertation research is offered:

- Chapter 1: Introduction – Background and Overview
- Chapter 2: Article 1: A qualitative synthesis of the exploration of hope in studies of children with Neurodevelopmental Diagnoses
 - Linking statement
- Chapter 3: Article 2: Knowing, reflecting and doing: using constructivist Grounded Theory to study hope among parents of children with Neurodevelopmental Diagnoses
 - Linking statement
- Chapter 4: Article 3: The light at the end of the tunnel: experience of hope among parents of children with Neurodevelopmental Diagnoses
- Chapter 5: General Discussion and Conclusion

The introductory chapter describes the rationale and objectives of the research and provides background to the study. The second chapter consists of the first article, which in this case comprises a qualitative synthesis of the published literature in the substantive area of the dissertation. This article fulfills the institutional requirements of providing a comprehensive review of the relevant literature in the area of study. Chapter 3 presents Article 2, a reflective and methodological account of the use of a particular approach (constructivist Grounded Theory, in this case) to the dissertation study. Chapter 4, Article 3, presents the main conceptual findings of the empirical study undertaken for the doctoral dissertation. This article utilizes a traditional empirical publication format to convey the findings and is specifically structured toward the requirements of the target journal to which the article is submitted. Finally, to satisfy the requirement of presenting an overall scholarly discussion and final conclusion, Chapter 5 offers a general discussion and conclusion. The linking statements between the three articles make explicit how one informs the next. In this case, the literature review informs the methodological approach, the rationale for the study, and the particular methods used. The findings paper (Article 3) naturally flows from the methodology paper (Article 2). It is acceptable by some institutions (like McGill, for example) that dissertation papers are longer and more detailed than manuscripts submitted for publication in a peer-reviewed journal. In order to fulfill institutional requirements, students

might, for instance, be required to offer more detail around the study methods than would otherwise be expected due to word limit constraints of journals.

The manuscript-based format can be advantageous and practical for many doctoral students seeking to establish a publication record prior to and shortly after completion of their programs of study. However, this format is not without its challenges. One of those challenges or considerations is the issue of authorship. As with any publication, authorship should be discussed early on in the writing process. It is most often the case that the student is required to be the primary author of each submitted article. Whether and in what order the supervisor, committee members, and others are listed on the manuscripts is a matter to be sorted out between the student and the supervisor/committee. Another challenge is the lack of models or examples emerging from social work programs from which students may draw to design their own manuscript-based dissertation. Additionally, some institutions and schools of social work may lack guidelines specific to this format. This means that the student may have to put in more effort to locate examples of proposals and dissertations and may be required to go outside the discipline to find them. Students who opt to use this format may face resistance from a number of sources, including their department, faculty, committee members, supervisor, and colleagues. Some committee members and supervisors may feel that the manuscript-based dissertation places more of a writing burden on them than if the student elected to write a traditional monograph dissertation, especially if they are being listed as co-authors. As such, they might discourage students from choosing this format. Some might have the sense that this format is either more or less work than a traditional format, which might also lead them to discourage using it. Others still might feel that the traditional dissertation is a rite of passage and might not value the manuscript-based format. Even if a committee is supportive of a student pursuing this format, they may lack the experience to adequately supervise and support a student, placing the student in a position to locate the information and educate their committee. Typically, it is the supervisor and committee who guide the student to ensure that all requirements are met prior to the dissertation submission. Students in this scenario may be uncomfortable with not being able to turn to their committee for answers to specific questions about dissertation requirements and the evaluation process. Given the added complexity of designing a manuscript-based thesis, the proposal stage of the doctorate may be more lengthy, as students must conceptualize how their work will generate several articles. Again, in the absence of a pool of proposal examples, students may experience difficulty in organizing a proposal that outlines the multiple articles ahead of time. The publication of peer-reviewed articles does not guarantee that the thesis will pass at the institution level. Many schools (e.g. McGill) state that publication or acceptance for publication does not supersede the evaluation of the dissertation by way of the university's standard procedure. So, although a manuscript has been published, the university still reserves the right to fail a dissertation that does not meet requirements. Finally, this format may be better suited to some types of studies, areas of research, and methodological approaches than others. Some research methods, for instance analysis of quantitative data, lend themselves particularly well to the manuscript-based format since students are often working with datasets that offer the prospect of several different analyses. Students can conceptualize each analysis as an individual publication. In contrast, some studies, for instance those drawing from traditional methodologies, necessitate the space a monograph thesis allows for the extended discussion of the findings.

The manuscript-based thesis is a pragmatic option for some doctoral students seeking to swiftly mobilize the knowledge generated over the course of their doctoral work. Many benefits have been discussed here, as well as some of the challenges that may arise for those who elect

to use this for discussed early committee and dissertation.

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to use this format. The decisions and practicalities involved in applying this format should be discussed early on in the doctoral program between the student and the supervisor and doctoral committee and should continue from the proposal stage right through to submission of the dissertation.

KMb exercise to practitioners

Up until this point, we have discussed trends in KMb activities among Canadian doctoral social work graduates and have proposed different approaches to publishing the dissertation. In this section we will share a new direction for knowledge mobilization drawn from our experience of bringing doctoral dissertation findings to practitioners and service users in the field of paediatric rehabilitation. Given the importance of doctoral dissertation findings for practice, we (a group of researchers and doctoral students) recently engaged in an innovative KMb exercise at a national conference, an activity that exemplified another method for taking doctoral findings to the field. The CIHR Team in Parenting Matters!, an emerging team funded by the Canadian Institutes for Health Research (co-principal investigator LL), was invited to present results of this program of research to practitioners, policy makers, and parents associated with the Canadian Association of Paediatric Health Centres (CAPHC). We presented commonly held 'myths' about parenting of children with neurodisabilities and doctoral research findings that addressed these myths, and then invited participants to reflect on practice implications associated with these myths using an interactive exercise.

There were over 100 participants in attendance, and four myths, reflective of commonly held beliefs about parents and parenting children with neurodisabilities, were presented. These included myths such as "parents who are hopeful are in denial", "fathers are not interested in being involved in their child's care plan", and "program and policy decisions are based on evidence". After each presentation, a question was posed to the group. For instance "how should hope be integrated into clinical care?", "how can we be more inclusive of fathers?", and "if there is ONE piece of information that policymakers should have, what should it be?"

After each presentation, participants were asked to gather in small groups in order to reflect upon and discuss the myth and findings. They were then asked to divide into groups of two in order to generate practice implications for each myth and its evidence and to write their favourite implication on an index card. Following that, participants were directed to walk around the room exchanging index cards. After one minute, the moderator asked them to stop and form new groups of two and to rate the recommendation written on the index cards in their hands on a scale of 1 to 7, with 1 being the lowest endorsement and 7 being the highest. They were asked to write down their rating on the back of the index card at each round. At the end of four rounds, participants were asked to add up the ratings. The four top recommendations were identified and shared with the group for each myth.

Following this, we generated a report that was distributed to all participants. Not only was it an active workshop that built in a consensus-building process regarding best practices tailored to the needs of participants, it also engaged participants to reflect on their taken-for-granted assumptions and invited them to think about ways in which they could change their practice in response to the knowledge generated by the doctoral students.

We have no way of knowing the extent to which their practices have changed. However, we do know that those practitioners must, at a minimum, question the extent to which their practice is consistent with the myths as opposed to the best practices identified through the consensus-building process.