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Research Mediation in Education: A Typology of Research Brokering Organizations That Exist Across Canada

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This paper explores the increasingly prominent role of research brokering organizations (RBOs) in strengthening connections between education research, policy and practice across Canada. This paper is organized in three sections. First, it provides a literature review of research mediation– exploring terminology, models and empirical work (albeit sparse) across health, business, education sectors. The second section provides three conceptual contributions to the field: RBOs' roles in knowledge mobilization occurring in the white space of broader public service systems, a typology of Canadian RBOs that exist in education using four broad categories: governmental, not-for-profit, for-profit and membership RBOs, and a knowledge brokering framework along seven dimensions: mission, resources, staff roles, political affiliation, autonomy, message and linkages. The third section provides empirical data about the frequency and types of RBOs that exist across Canada.

Cet article explore le rôle de plus en plus important que jouent les organismes de médiation de la recherche dans la consolidation des liens entre les politiques et la pratique en matière de recherche en éducation partout au Canada. L'article se divise en trois sections. D'abord, on y présente une revue de la littérature portant sur la médiation de la recherche et évoquant la terminologie, les modèles et le travail empirique (quoique limités) qui touchent les secteurs de la santé, des affaires et de l'éducation. La deuxième section contribue trois concepts au domaine : les rôles que jouent les organismes de médiation de la recherche dans la mobilisation des connaissances dans les « espaces vides » de la fonction publique en général; une typologie des organismes canadiens de médiation de la recherche en éducation selon quatre grandes catégories (gouvernemental, sans but lucratif, à but lucratif et composé de membres) et un cadre portant sur la médiation de la recherche et axé sur sept dimensions (mission, ressources, rôles du personnel, affiliation politique, autonomie, messages et liens). La troisième section offre des données empiriques sur la fréquence et les types d'organismes de médiation de la recherche qui existent au Canada.

Introduction

There is growing recognition that mediation between research producers and users is necessary to increase research dissemination and use to improve public services (Cooper & Levin, 2010; Levin, 2008; Lomas, 2007; Nutley et al., 2007; Tseng, 2007; Ward et al., 2009). The Social Sciences and Humanities Research Council (SSHRC) of Canada defines knowledge mobilization

(KMb) as "a range of processes that help move research results into society, as well as bring new ideas into the world of research. From knowledge-brokering and outreach, to more effective dissemination through new technologies, to the co-creation of knowledge, these processes help ensure that public investments in social sciences and humanities research have the greatest possible impact – intellectually, socially and economically" (SSHRC, 2010, p. 12). Intermediaries (third party research brokering organizations that connect research producers and users) are increasingly involved in facilitating research use across sectors; consequently, researchers are beginning to ask who is involved in these roles, what functions they perform, how they accomplish research mediation, and what impact these third parties do play, could play, or should play in educational improvement initiatives (Datnow & Honig, 2008; Feldman, Nadash & Gursen, 2001; Greenhalgh et al., 2004; Kitson, Harvey & McCormack, 1998; Sin, 2008). This paper attempts to develop conceptual clarity of intermediaries in the public education sector. In order to do so, it explores terminology, conceptual frameworks, and empirical work from other sectors. The literature suggests that education is just beginning to grapple with the many issues surrounding KMb that other sectors, such as health and business, have been developing and studying for decades (Pfeffer & Sutton, 2000, 2006). That being said, these sectors also report prevalent gaps between research, policy and practice despite sustained efforts to address KMb in these contexts (Nutley et al., 2007).

While there is very little empirical work exploring KMb across sectors, it is especially sparse in education (some of the studies that do exist include Biddle & Saha, 2002; Cordingley, 2008; Cordingley, Bell, Evans & Crawford, 2004; Levin, Cooper, Arjomand & Thompson, 2010). Levin (2004) conceptualizes KMb in three domains: 1) research production (universities, think tanks, research centres), 2) research using organizations (government policymakers, school districts, schools) and, 3) third party intermediary organizations that facilitate interaction between researchers and users. Much of the research that does exist on KMb originates from the health sector and focuses on the first two domains, the research producing contexts (e.g. Belkhodja & Landry, 2007; Landry et al., 2001) and research using contexts (e.g. Amara et al., 2004; Lavis, Robertson, et al., 2003), with very few studies addressing the intermediary organizations that often facilitate research use processes. This is problematic because it limits our understanding of how research is adapted and translated from production in academic settings in order to be useful to practitioners in classrooms and schools. Teachers and Principals in educational settings are not usually consumers of primary research from academic articles or lengthy research reports (Biddle & Saha, 2002; Cordingley, 2008; Levin, Cooper, Arjomand & Thompson, 2010). Instead, practitioners engage with different formats of research indirectly through professional development events, in staff rooms with colleagues, from the media, and often through various third party organizations:

> Intermediaries often play a significant role in interpreting, packaging, and distributing research evidence for policymakers and practitioners. Intermediaries can be the primary means by which legislative staff and agency directors acquire research. They also provide forums that bring together researchers and policymakers or researchers and practitioners around particular topics. Given their central role in research use, intermediaries should receive more focused attention in future studies. (Tseng, 2007, p. 18)

Educational intermediaries have also been increasing in the past twenty years; in the US alone, think tanks have quadrupled from less than 70 in the 1970's to over 300 since then (Rich,

2004). Some attribute this growth of intermediaries to the international climate demanding better evidence-based decision-making and use across public service sectors, especially in relation to health and education (Nutley et al., 2007). As these third party agencies become more involved in mediating research use in education, many funders (e.g. William T. Grant Foundation) and prominent scholars in the field (such as Sandra Nutley and her colleagues) are highlighting the importance of intermediaries' roles in KMb and emphasizing the need for empirical work on third parties in the KMb process (e.g. Davies & Nutley, 2008; Honig, 2004; Nutley et al., 2007; Levin, 2004, 2008).

This paper is organized in three sections. First, it provides a literature review of research mediation– exploring terminology, models and empirical work (albeit sparse) across health, business, and education sectors. Second, it proposes three conceptual contributions: 1) A conceptualization of intermediaries' roles in knowledge mobilization occurring in the white space of broader public service systems; 2) A typology of the kinds of Canadian research brokering organizations (RBOs) that exist in education, including empirical data mapping RBOs across Canada; 3) A framework of knowledge brokering characteristics along seven dimensions: mission, resources, staff roles, political affiliation, autonomy, message, and linkages. Third, it provides empirical data about the RBOs that exist across Canada. Ultimately, this paper explores the increasingly prominent role of RBOs in strengthening connections between research policy and practice in education.

Literature Review

Intermediaries

Multiple terms and models for intermediaries. What counts as an intermediary in education, or other sectors, is not clear from the existing literature. Many terms (Table 1) that describe mediating processes are often utilized interchangeably, such as knowledge brokers (Jacobson, Butterill & Goering, 2003), intermediaries (Honig, 2004), third party agencies (Levin, 2008), facilitators, and boundary spanners (Ward, House & Hamer) among others. These definitions differ largely by sector. The definitions from the health sector all identify the role in terms of connecting researchers and producers for the purpose of knowledge translation (an analogous term to KMb)and, as a result, might be usefully applied to the education sector. The business sector has an expansive literature on intermediaries, but these conceptions primarily deal with innovation in competitive corporate environments; hence, they are less useful in understanding the role intermediaries might play increasing KMb in education or other public services. The term 'broker' means different things in different areas:

> In business, a broker is an agent, promoter, dealer, fixer, trader, someone who buys and sells; in politics, a broker is a diplomat, mediator, go-between, negotiator; in the information world, a broker is someone who knows how to access or acquire information and who provides a gateway to information resources; in education, a broker is a proactive facilitator who connects people, networks, organizations and resources and establishes the conditions to create something new or add value to something that already exists. (Jackson, 2003, p. 4)

Table 1

Popular terms used in various sectors to describe third party roles in research use

Term	Sector	Definition & Source
Intermediaries	Education	Intermediaries are organizations that occupy the space in-between at least two other parties. Intermediary organizations primarily function to mediate or to manage change in both those parties. Intermediary organizations operate independently of these two parties and provide distinct value beyond what the parties alone would be able to develop or to amass by themselves. At the same time, intermediary organizations depend on those parties to perform their essential functions. (Honig, 2004, p. 67)
Innovation broker		Innovation brokers help to mobilise innovations, identify opportunities that the current system undervalues and they broker relationships between disparate parts of the system. These organisations mediate both knowledge and relationships for their clients. (Horne, n.d., p.3)
Knowledge broker		Middlemen, intermediaries, or agents who act as negotiators, interpreters, messengers or commissioners between different merchants or individuals. ("broker", 2010)
	Health	Knowledge brokers mediate between researchers and user communities. Individuals serving as brokers must understand both the research process and the users' decision-making process. (Jacobson, Butterill & Goering, 2003, p. 98)
		Knowledge brokering links researchers and decision makers, facilitating their interaction so that they are able to better understand each other's goals and professional culture, influence each other's work, forge new partnerships, and use research-based evidence. Brokering is ultimately about supporting evidence-based decision-making in the organization, management, and delivery of health services. (CHSRF, 2003, p. 2)
		Knowledge brokering is the various people-based actions of knowledge exchange and adoption….knowledge brokering is typically used to refer to processes used by intermediaries (knowledge brokers) in mediating between sources of knowledge (usually science and research) and users of knowledge. Knowledge brokering is usually applied in an attempt to help knowledge exchange work better for the benefit of all parties. (Land & Water Australia, 2006, p. 7)
	Business	Individuals or organizations that cross policy and practice divides. (Sin, 2008, p. 86)
		Knowledge brokers can play an important role in open innovation processes. They act as catalysts, accelerating the combination of complementary knowledge and skills necessary to solve innovation problems, by making the right connections and links with solvers and seekers. In this way, knowledge brokers can help increase collaborative advantage. (Sousa, 2008, p. 22)
		Third parties who connect, recombine, and transfer knowledge to companies in order to facilitate innovation. (Cillo, 2005, p. 404)
Research Broker	Business	Those who package and retail the intellectual outputs of the research community to policymakers.(Sundquist, 1978 in Sin, 2008, p.86)
	General	Research brokers make ideas matter and use their intellectual authority to verify certain forms of knowledge as more accurate, persuasive or objective.... promote ideas and attempt to push them onto the public/government agenda ('soften' the climate of opinion towards particular alternatives). (Stone, Maxwell & Keaton, 2001, p.35)
Mediator	General	This is the intellectual worker as enabler, fixer, catalyst and broker of ideas. Perhaps the salient feature, though, is the association of mediators with movement. The mediator is simply the one that gets things moving. (Osborne, 2004, p.440)

Jackson's definition of broker in relation to education is useful for the conceptualization of intermediaries ultimately offered in this article in a number of ways. First, it defines the role as proactive. Secondly, it outlines a number of important aspects such as connections between people, networks, organizations and resources, and lastly, it highlights that brokers add value.

A review of the literature in the education sector produced very few definitions: Honig's (2004) definition of intermediaries arising from an empirical study on policy implementation in the US, to be described more fully later, and a new term coined by Matthew Horne in the UK, innovation broker, that has recently emerged in the education sector paralleling the business sector conception of a knowledge broker. Horne critiques the term 'intermediary' on the grounds that it is "commonly used in technical and policy documents but sounds a little passive – a mere go-between. Broker is a more active term indicating a role that connects people but also generates and facilitates innovation" (Horne, n.d., p. 37). Honig identifies intermediaries' role as managing change between two parties, whereas for Horne the central function is to mediate innovation. I use the term research brokering organization (RBO) to describe third party intermediaries whose active interaction between research producers and users is a catalyst for increased KMb and research use in the education sector. I chose research brokering organization, rather than knowledge mobilization intermediary or other terms because I think the term RBO includes the function of these organizations more clearly in that the type of knowledge being mobilized (research) is clearly stated.

In addition to the multiple terms that exist for the role of intermediaries, there are also a number of knowledge brokering models (Table 2). These models originate predominantly in health and business, but many of the functions and dimensions listed are relevant to education.

Empirical studies on intermediaries from across sectors. As the recognition of the increasing number and importance of intermediaries involved in KMb processes across sectors has grown, studies have begun to examine research mediation. Lavis Robertson, et al. (2003) surveyed 265 directors of applied research organizations (both applied health research organizations, N= 134, and applied economic/social research organizations, N=131). They defined applied health research organizations "as research groups studying the effectiveness and efficiency of clinical services and health care systems" (p. 230). They defined economic and social research organizations "as research groups studying the effectiveness and efficiency of government economic/social programs and economic/ social policy systems" (p. 230). Their sample included four types of organization: autonomous research groups, semiautonomous research groups in universities, semiautonomous research groups in federal or provincial government departments, and semiautonomous research groups in Québec's largest regional health authorities. They excluded university departments or schools, virtual networks of researchers, management-consulting firms, marketing-research firms, professional membership organizations and research groups that had existed for less than a year. Their sample was made up primarily of intermediary organizations, although they do not use this terminology, that attempt to cultivate stronger relationships between research and practice in a public service sector. As a result, this study can make a significant contribution to understanding these organizations in education. Though undeniably different sectors, there are also compelling similarities between the function and purpose of public services, such as continuous public scrutiny, a unionized workforce, diverse users, pressure to serve all Canadian citizens, different levels and kinds of organizations (schools are analogous to hospitals, with both having district or regional authorities) all governed by a central ministry, among others.

Table 2

Knowledge Brokering Models

Sector	Model, Factors affecting KMb
Health (Lavis, Robertson, et al., 2003)	This model is a five prong organizing framework: (1) the message, (2) the target audience, (3) the messenger, (4) the knowledge transfer process and supporting communications infrastructure, (5) evaluation. Lavis emphasizes that importance of credibility and trust, and suggests that researchers working through trusted intermediaries (knowledge brokers) as messengers might address researchers' time constraints, limited interest of, and skills applicable to KMb, while at the same time enhancing the messenger's credibility; therefore, ultimately increasing research uptake by users.
Health (Land & Water Australia, 2006)	(1) **Network Knowledge Brokers** are members of a specific network, for example the World Health Organisation (WHO) or the Australian Wildlife Health Network. They use their networks to transfer information between the ABCRC and that network. (2) **Issues-based Knowledge Brokers** champion particular issues so that programs respond to high priority issues and stakeholders have a single point of contact for information arising from multiple research projects. (3) **Program-based Knowledge Brokers** are Research Program coordinators who ensure research projects are integrated across programs. (4) **Project-based Knowledge Brokers** are members of a research project team. They work with the research team and the end-users to ensure that expectations of the research project are managed and that the needs of the end users are met, leading to improved research adoption.
Health (Jacobson, Butterill & Goering, 2005)	Six stage model of consultancy that could be applied to different roles that KMb brokers could play in user organizations: (1) **Pre-entry**: in which the context for the consulting project is set (2) **Entry**, in which the consultants and clients define the central issues and the project scope (3) **Diagnosis**, in which consultants assisted by clients gather and analyze data (4) **Intervention**, in which clients and consultants interpret the analyse data (5) **Exit**, in which consultants write and present report (6) **Post-exit** in which the client does or does not implement the recommendations. This model involves four types of work: business work (budgeting and hiring), project management work, substantive work (gathering, synthesizing, and applying knowledge) and political work (interpersonal and political context).
Business (Cillo, 2005)	This model is based on (1) cognitive distance between the contexts and (2) the complexity of the knowledge to be transferred. **Information-Broker** (low distance/low complexity): core function is transfer, sporadic interaction among groups. **Knowledge Coder** (high distance/ low complexity): core function is knowledge codification, sporadic interaction among groups; **Integrated Knowledge Broker** (low distance, high complexity): core functions access and transfer, continuous interaction among groups, knowledge transferred by directly interacting with two parties needing to share knowledge; **Pure Knowledge broker** (high distance, high complexity): core functions are access, recombination and transfer, involves continuous interaction among groups.
Business (Sin, 2008)	Five consultancy approaches to knowledge brokering: (1) **Cross-pollinators** work across sectors and, by virtue of these interactions, can often identify and apply benefits among sectors (2) **Matchmakers** help bring research producers and users together in order to build shared understanding among stakeholders (3) **Translators and processors** interpret and adapt research to suit particular contexts and users (4) **Multiple dissemination routes**: These brokers make research available in diverse formats, using a variety of techniques in order to increase impact (5) **Articulators of user perspectives**: These brokers introduce users to new evidence while simultaneously giving feedback to research producers about the needs of users (summarized and adapted from pp. 93-96)

Lavis, et al. (2003) found that even in these intermediary organizations, with an explicit focus on knowledge translation (KT is an analogous term to KMb used in the health sector), only about one third had developed strategies beyond the simple transmission of research reports and summaries or had actionable messages. They also found that while 60% of these organizations tailored KT approaches to specific audiences, only 39% of respondents dedicated resources to get to know their audiences. Capacity building was not prioritized either externally with target audiences or internally with staff members who were responsible for KT. Only 20% of these intermediaries dedicated resources to skill building among their target audiences. Few organizations used resources to enhance capacity through skill building among KT staff (22%), getting to know the research literature on effective approaches to KT (21%), or learning what constitutes a 'credible' message for their audiences (17%). Research organizations within the Lavis, et al. study, however, did have dedicated staff with KT duties (63%), and a significant minority created explicit incentives (e.g. performance goals/measures, targeted stipends) for staff to engage in KT activities (42%). In these organizations, an average 14% of their research budget was allocated to KT. Almost all used websites to supplement interactive processes (91%), with 60% using newsletters and 33% using listservs. Only 10% of these organizations reported any type of evaluative activity related to KT.

The overall finding was that health research organizations quite often reported transferring research knowledge in ways consistent with our understanding of how best to undertake such activities, more frequently than economic/ social research organizations. Even in intermediary organizations, however, KT efforts remain modest across a number of areas. While the amount of staff with explicit roles and the fact that some resources are dedicated explicitly to this work were promising, "directors…were remarkably frank about their not evaluating their knowledge transfer activities" (p. 240). The need to evaluate KT efforts is critical to understanding which strategies are more and less effective in different contexts. Another interesting finding from this study was the relationship between audiences and KT practices:

> Canadian research organizations that identified [multiple] audiences tended to report transferring research knowledge in ways consistent with our understanding of how to undertake such activities more frequently than did research organizations that identified fewer possible groups as target audiences…this may reflect a greater commitment to KT among those research organizations that exist to serve multiple target audiences (i.e., serving multiple target audiences is more complicated, so more resources are dedicated to it, a possibility borne out by the gradient in both the mean and median proportions of research budgets spent on knowledge transfer). (p. 242)

Hence, looking at intermediaries that deal with more stakeholder groups might teach us more about the different types of KMb strategies that are needed with different groups in education.

Another recent study by Lomas (2007) surveys 400 knowledge brokers in the health sector, only a few of whom have full time designation in this role. He found that knowledge brokers spend about 30% of their time on transforming knowledge (reading and disseminating research) and 20% of their time on facilitating research mediation (actually linking decision makers and researchers). The remaining time was spent in management duties or teaching. Lomas categorized knowledge brokers in relation to their location within the broader system and found that 30 % were based in universities, 10 % were in foundations or research funding agencies and the remaining 60 % resided in different levels of the health system such as hospitals or regional

health authorities.

Lomas (2007) outlines a number of attributes and skills of knowledge brokers from his extensive work in this field such as "entrepreneurial (networking, problem solving, innovating);

trusted and credible; clear communicator; understands the cultures of both the researcher and decision making environments; able to find and assess relevant research in a variety of formats; facilitates, mediates and negotiates, and; understands the principles of adult learning" (p. 130).

Lomas (2007) describes four major brokering activities, utilizing the example of the Canadian Health Services Research Foundation (CHSRF):

> Setting the research agenda (consulting with key stakeholders to increase chances of research uptake and linking funding to collaboration with organizations within the system); facilitating applied research (graduate student awards to ensure work in this area, inclusion of decision makers of co-investigators as a formal requirement, co-production of research-syntheses with people who can implement the results); disseminating research (plain language summaries, virtual networks along priority theme areas, organizing face-to-face events among multiple stakeholders on priority areas); getting research used (funding and evaluating selected knowledge brokers, providing workshops for health professionals on tools and techniques for research use, fellowship training programs for decision makers in research application) (p. 131).

Robinson et al. (2005) conducted a parallel case study exploring the utility of linking systems in heart health promotion across three provincial dissemination projects of the Canadian Heart Health Initiative (CHHI). They define a linking system as "interactions between public health resource groups and user groups in the development, transfer and use of knowledge, practices and programs. The goal of a linking system process is to enhance capacity for, and the transfer and uptake of, a given set of practices or programs by public health user groups" (p. 499). A linking system is analogous to the many terms being used across sectors around intermediary roles in research mediation. The study included qualitative (key informant interviews) and quantitative data (project reports) collected from Prince Edward Island, Ontario and Manitoba. All three of these provincial initiatives explicitly embraced a linking system approach within CHHI. Robinson et al. found that the three provincial cases differed in scope of the linking systems: PEI had a community scope targeting a heart health coalition; Manitoba had a regional scope involving five rural community committees; and Ontario's linking system had a provincial scope and spanned all 37 local public health units.

Robinson et al. (2005) list a number of linking activities aimed at supporting research uptake and evidence-based practice in their study of research use in the health sector including: regular communication, training/retreats, collaboration, co-sponsorship, networking, facilitation, informal training, advocacy, research information, volunteer development, research, monitoring/feedback, provincial resource center, research dissemination, technical support, resource provision, modular training, informal training and supporting existing groups. The list of activities is diverse and each could be conducted by a RBO, but it is not always clear how these are distinct activities (for example research versus research information, or the differences between collaboration, networking and facilitation). Robinson et al. maintain that these common linking functions and activities fit the characterization by Anderson et al. (1999) of linking activities as focusing on (1) awareness, (2) communication and (3) interaction, but this study adds a fourth function of capacity building.

Facilitators and barriers affecting linking systems included skilled and committed people, funds/resource, priority/buy-in, leadership, communication, partnerships and structure. Overall:

> The findings do suggest that whether a linking system operates at a community, regional or provincial/state level, similar conditions for success emerge. Two-way exchange and active involvement of resource and user groups depend on commitment and communication channels. Linking systems center on interaction between diverse groups, hence senior leader buy-in and the presence of appropriately skilled people in facilitation roles are essential. (p. 510)

In the end, while Robinson et al. found improvements to capacity enhancement and implementation of heart health programs; they could not draw any conclusions between specific types of linking mechanisms used and outcome measures reported.

Honig's (2004) study of four groups involved in policy implementation in the US is one of the only empirical studies explicitly investigating intermediaries in the education sector, although it is not specifically about knowledge mobilization intermediaries, but about program or policy implementation. She labels intermediaries "the new middle management". At the outset of her study, Honig states her intention to address the knowledge gap surrounding intermediaries, maintaining that "despite their growing number, research and experience teach little about intermediary organizations" (p.65). She attempts to address this knowledge gap by answering three questions: "1) What defines intermediary organizations as a distinct organizational population?; 2) What functions do intermediary organizations serve in education policy implementation?, and; 3) What conditions constrain/enable intermediary organizations in carrying out their functions?" (p.66).

Honig draws on organizational ecology literature in order to answer the first research question by identifying two dimensions of likeness which define an organizational group: "1) similar technical core (functions), and; 2) dependence of population members" (p. 67). She then outlines five dimensions along which intermediaries vary: (a) levels of government (or types of organizations) between which they mediate; (b) composition of intermediaries (membership); (c) location (internal versus external intermediary organizations); (d) scope of intermediaries' work (within a single district or across multiple jurisdictions), and; (e) funding/revenue sources

Honig (2004) also highlights a number of functions of intermediary organizations arising from her study including: knowledge of sites and policy systems, regular meetings, documentation and dissemination of information, simplified information about experience, ongoing knowledge building processes, social and political ties to sites and policy systems, translation of sites' demands into actionable terms, buffers for sites, administrative infrastructure, site and central office systems for resource allocation, staff time, standards and accountability. This list is diverse and reveals the range of activities in which intermediaries can be involved when dealing with different organizations; part of this arises from different organizations having different needs in the change process.

Taken together, these studies contribute to our knowledge base on intermediaries by elaborating on what dimensions define intermediaries, where they are located in the system, what attributes contribute to their effectiveness and what type of KMb activities they are facilitating.

Barriers: A word of caution. There are a number of barriers also associated with knowledge brokers' role in translating research to suit various contexts. One concern relates to

the quality of the interpretation of research by intermediaries. Sin (2008) cautions about some possible negative consequences of using intermediaries:

> It cannot be assumed that all types of intermediaries are adept at interpreting the range of evidence required for a variety of purposes. This may be particularly so when evidence may not have been produced with intermediaries in mind. It is, moreover, clear that different intermediaries (whether individuals or organizations) have their own agendas and vested interests and these can all have a range of direct and indirect impacts on how and in what ways the worlds of evidence, policy and practice are linked (p. 97).

While intermediaries have the potential to play an important role in knowledge mobilization, it cannot be assumed that they are a panacea in connecting research, policy and practice.

Other barriers to RBOs mediating research use include buy-in from the organizations they work with, lack of empirical evidence of what KMb strategies are most effective in what context, as well as trust and credibility issues associated with being an 'outsider'. Measuring the impact of research and brokering is a complex challenge that is being taken up by the health sector (see Lavis, Ross et al., 2003; Kuruvilla et al., 2006), however approaches to measure impact in education still need to be developed.

Hypotheses about RBOs in Education

RBOs function predominantly in the white space of the education system. In education, we often try to identify what areas of an organization or system have the largest capacity for improvement. This is critical to ensuring that resources are targeted at the right area in order to reap the largest possible benefits from public investments. The term "white space", in visual arts, refers to the space between text and images; it is not considered blank or insignificant space, but rather an important aspect of how people interpret and understand particular messages (Boulton, 2007). This concept has been adapted by Rummler and Brache (1991) in process management where white space is articulated as the area between the boxes in an organizational chart. Often, in organizations and systems, no one is explicitly in charge or responsible for the white space even though critical interactions and functions happen between these clearly demarcated boundaries, departments and organizations. This is where things fall between the cracks as no one takes explicit ownership which often results in misunderstandings or a lack of progress. Rummler and Brache (1991) maintain that the white space is the area in which an organization has the greatest potential for improvement:

> *All organization structures have white space. The mission is not to eliminate white space. The mission is to minimize the extent to which white space impedes processes and to manage the white space that must exist.* If you organize by product, there's white space between products. If you organize by function, there's white space between functions.... there is...white space between projects, between processes...and between people (emphasis in original, p.183).

The oft-cited gaps that occur between research, practice and policy happen in the white space of the education system: between universities, funding agencies, ministries of education, school districts, schools, professional associations, community organizations and the many other organizations which comprise the broader system. This paper conceptualizes KMb and the

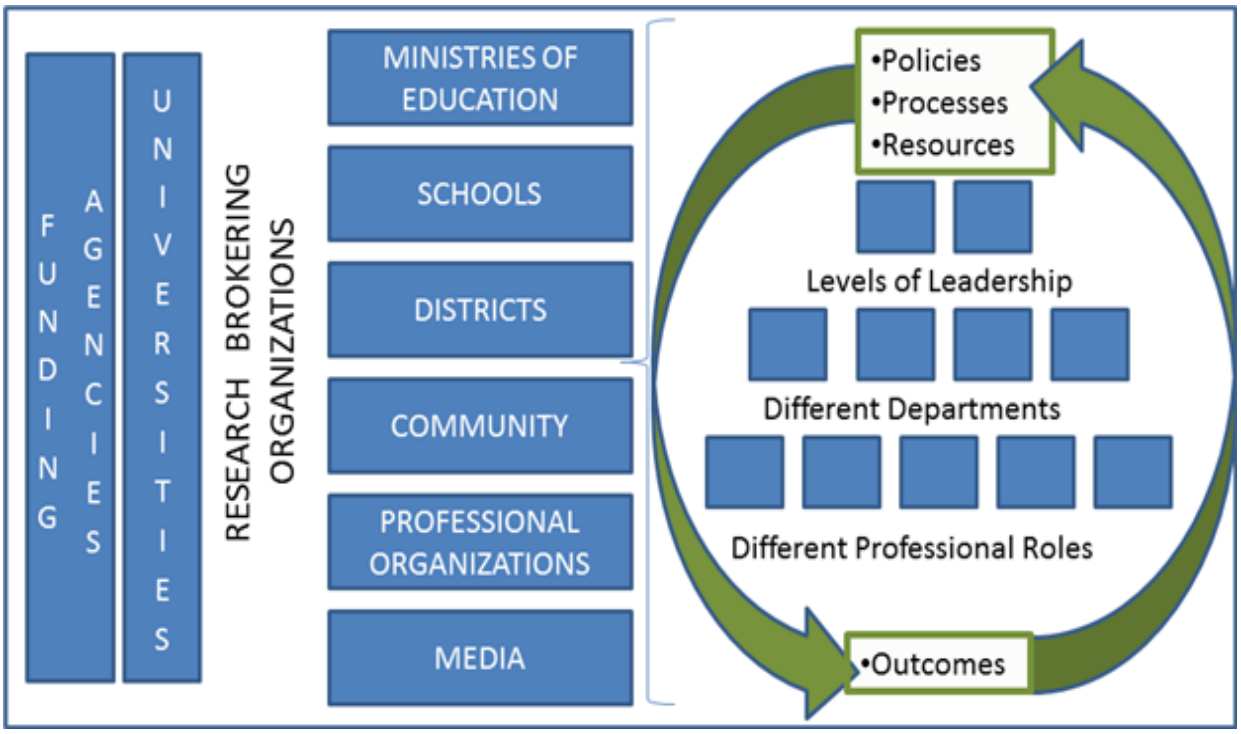

Figure 1. Knowledge mobilization occurs by research mediation in the white space of the systems.

work of intermediaries as occurring in the white space of the public education system (Figure 1).

The broader education system is displayed on the left side of the figure with RBOs in the white space between the diverse organizations. Individual organizations from each group on the left can also be looked at separately (shown on the right side of the figure) which reveals white space between roles, departments, levels of leadership as well as between policies, processes, resources, and outcomes. KMb occurs predominantly through research mediation in the white space of a system or organization. Part of what makes KMb so challenging is that its success is predicated upon linkages and connections *between* and *within* diverse organizations. Predominantly, KMb work is not explicitly designated *within* OR *between* organizations; hence, it does not get prioritized. Rather, KMb (if it happens at all) occurs mostly in an ad hoc manner (Cooper et al., 2009; Nutley et al., 2007). There is also disagreement surrounding whose role it is to do KMb; some argue that it the role of researchers to make research more accessible, others that users should seek it out, with a third view being that it should be the role of specialized intermediaries rather than researchers or users as they have different professional roles (Cooper, 2012).

This paper conceptualizes intermediaries as operating predominantly in the white space of education, spanning organizational boundaries in order to connect and facilitate interaction among various stakeholders. This analogy arises from the literature that consistently highlights the fact that intermediaries have an in-between vantage point that is critical to their function. This in-between vantage point occurs between groups, organizations, disciplines, sectors and countries depending on the context and mandate of the intermediary. The Organisation for Economic Co-operation and Development (OECD) for instance is situated between multiple countries. Regardless, the role of connectivity across diverse boundaries delineates the work and essence of what intermediaries do.

A typology of brokers, intermediaries and mediators. Many organizations do KMb intermediary work as one part of a much broader mandate. This paper uses the term research brokering organization (RBO) to describe third party intermediary organizations that (a) connect research producers and users; (b) have explicit KMb mission statements, and; (c) dedicated resources to address research-practice-policy gaps. Due to the brokering role being about connecting diverse stakeholders, organizations that connect researchers to researchers or practitioners to practitioners are not RBOs.

Studies across sectors have highlighted the influence of organizational context to research use; because different organizations have diverse functions within the education system, the nature and frequency of research use varies across organizational contexts, domains and disciplines (Amara, Ouimet & Landry, 2004; Belkhodja et al., 2007; Biddle & Saha, 2009; Coburn & Stein, 2010; Cordingley, 2008; Landry et al., 2001; Nutley et al., 2007). For example, in policy-making environments, such as ministries of education, timeliness of research might be more influential, whereas in practice environments, such as schools and classrooms, practical adaptations of research products might be more crucial. The same logic can be applied to the various intermediaries that exist in education. Diverse types of intermediaries can have very different roles depending on their purpose and which target audiences they deal with; so, considering the type of intermediary, its purpose and target audience will be important in exploring KMb efforts, especially when comparing different kinds of organizations.

What counts as an intermediary in education, or other sectors, is not clear from the existing literature. Part of the confusion surrounding intermediaries is that many types of individuals *and* organizations are mentioned in the literature. Nutley, Walter and Davies (2007) list a variety of knowledge brokers including "charitable foundations, different kinds of research centres, government agencies, bridging organizations, professional organizations and individual researchers" (p. 63). Levin (2004) contributes others to this list such as the media (mass and professional), lobbyists, interest groups, think tanks, labour groups, policy entrepreneurs, private companies and consultants as well as popularizers (well-known figures who integrate research into their work with educators and the public). Honig (2004) notes that intermediaries are particularly difficult to identify and study because many studies refer to intermediary organizations without defining what makes them intermediary, and many organizations identify themselves as intermediary organizations (often, this is one more designation added to a host of others):

> These trends make it difficult to discern what intermediary organizations are, what they do, and how they operate. Accordingly, research, policy and practice provide weak guides for what may be productive and appropriate roles for this increasingly prominent participant in education policy implementation. (p. 65-66)

However, Sin (2008) highlights the importance of differentiating among intermediaries:

> It is meaningless, however, to discuss intermediaries as an amorphous monolithic entity. Instead, the evidence-based policy and practice enterprise should engage in sustained discussion around the identification of who intermediaries may be, why they may play brokerage roles in particular contexts, how they perform such roles, and what this impact might be. It is likely that roles and functions may be fluid and context-dependent. A greater understanding of such intermediaries and the roles they perform will be beneficial to a more sophisticated understanding of the process of linking policy to practice. (p. 98)

This paper develops a typology of RBOs in education in order to heed the call for more nuanced understanding of these organizations and roles arising from the literature.

In order to study relationships between research, policy, and practice in education, it is necessary to identify the various organizations and groups that are involved in KMb processes. Coburn (2005) explores the relationship between state instructional policy and classroom practice using the case of reading instruction in California. She highlights the tendency of studies to focus narrowly on formal policy systems, such as district, state, and country, into schools, despite the fact that this formal system does not exist in a vacuum detached from other external influences and players. Coburn (2005) describes two types of actors in education: system actors are "individuals and organizations that constitute state and local governance of schooling", whereas non-system actors are "not formally part of the system" (p. 24). She outlines various types of non-system actors based on Rowan's (2001) identification of three classes of private organizations that play a role in education,

> …*for-profit firms*, including textbook publishers, instructional program vendors, and other service providers; *membership organizations*, such as professional associations, advocacy groups, and networks; and *nonprofit organizations*, including universities, research firms, and quasi governmental agencies that provide research and development and technical assistance or act as intermediaries. (p. 24)

Coburn maintains that the role of these external organizations has rarely been explored, especially in relation to policy implementation and classroom practice: "Studies that have addressed this issue provide evidence that nonsystem actors are a key mediating link between policy and practice" (p. 23). Hence, she urges that researchers consider both system and non-system actors when looking at educational phenomena as well as the interaction between these groups. As a result, this study considers system and non-system RBOs.

To address the lack of differentiation among intermediaries throughout the literature, a typology of RBOs was developed (Table 3). Four broad categories are utilized to differentiate RBOs according to their location in the system and major funding sources: governmental, not for profit sector, for profit and organizations that collect fees from their members (Coburn, 2005; Honig, 2004; Rowan, 2001). Each category is further disaggregated in relation to various types of organizations listed throughout the literature (Levin, 2004; Nutley et al., 2007). This typology will be utilized in the third section of this article to map the frequency and types of RBOs that exist across Canada.

Table 3

Typology of Canadian RBOs in education (with examples)

CATEGORIES (location; funding)	**DISAGGREGATED TYPES & CANADIAN EXAMPLES**
1.1.0 Governmental Intermediary RBO (System Actor; internal; funded by government)	***1.1.1 Provincial ministry research branches*** that deal explicitly with research use and evidence-based policies and strategies. (Ontario Education Evaluation Research and Strategy Branch)
	1.1.2 District level research services teams that exist outside schools but are embedded within school districts to provide support for evidence-based initiatives. (E-Best, Hamilton Wentworth School District in Ontario)
	1.1.3 Evaluation, standards organizations that have an explicit KMb role in public schools. (Education Quality and Accountability Office)
	1.1.4 Funding Agencies are agencies that provide funding for research thereby supporting research infrastructure and policy. They sometimes have grants which require linkage and exchange between producers and users. (SSHRC)
1.2.0 Not-for-profit Intermediary RBO (non system actor; external; funded by a variety of sources such as fundraising and donation or funding from various organizations)	***1.2.1 University research centers*** and programs that focus on connecting research to practice and policy communities; if they are simply researchers collecting data for studies in the public school system, they are not included. (Research Supporting Practice in Eduation; Harris Center; Research Impact)
	1.2.2 Advocacy Organizations are defined by Andrews and Edwards (2004) as organizations that " make public interest claims either promoting or resisting social change that, if implemented, would conflict with the social, cultural, political, or economic interests or values of other constituencies and groups" (p. 481). (People for Education)
	1.2.3 Issue Based Organizations mobilize research around a particular issue (for example literacy or learning disabilities). (Learning Disability Association of Ontario, the Centre)
	1.2.4 Think tanks are defined by Rich (2004) as "non-profit public policy research organizations either independent or associated with a college or university" (p.13). (Atlantic Institute for Market Studies, Fraser Institute)
1.3.0 For-profit Intermediary RBO (non system actors; external; private funding from business sector)	***1.3.1 Textbook publishers, instructional program vendors*** especially where these organizations create tools and resources for KMb (Thompson Corporation)
	1.3.2 Research consulting companies: Consulting companies where the focus and professional development with teachers or researchers revolves around KMb. (KMbWorks)
	1.3.3 Media Organizations: Professional media and mass media where sustained coverage deals explicitly with research use in education. (TVO)
1.4.0 Membership Intermediary RBO (System/non-system actors; internal/ external; funding from members)	***1.4.1 Professional Organizations***: Unions and other professional associations in education where there is a focus on research use. (Council for Ontario Directors of Education, Ontario Secondary School Teachers Federation)
	1.4.2 Network Organizations are organizations who are non-partisan and are primarily involved in maintaining networks across various stakeholders. (Canadian Education Association, Canadian Council on Learning)

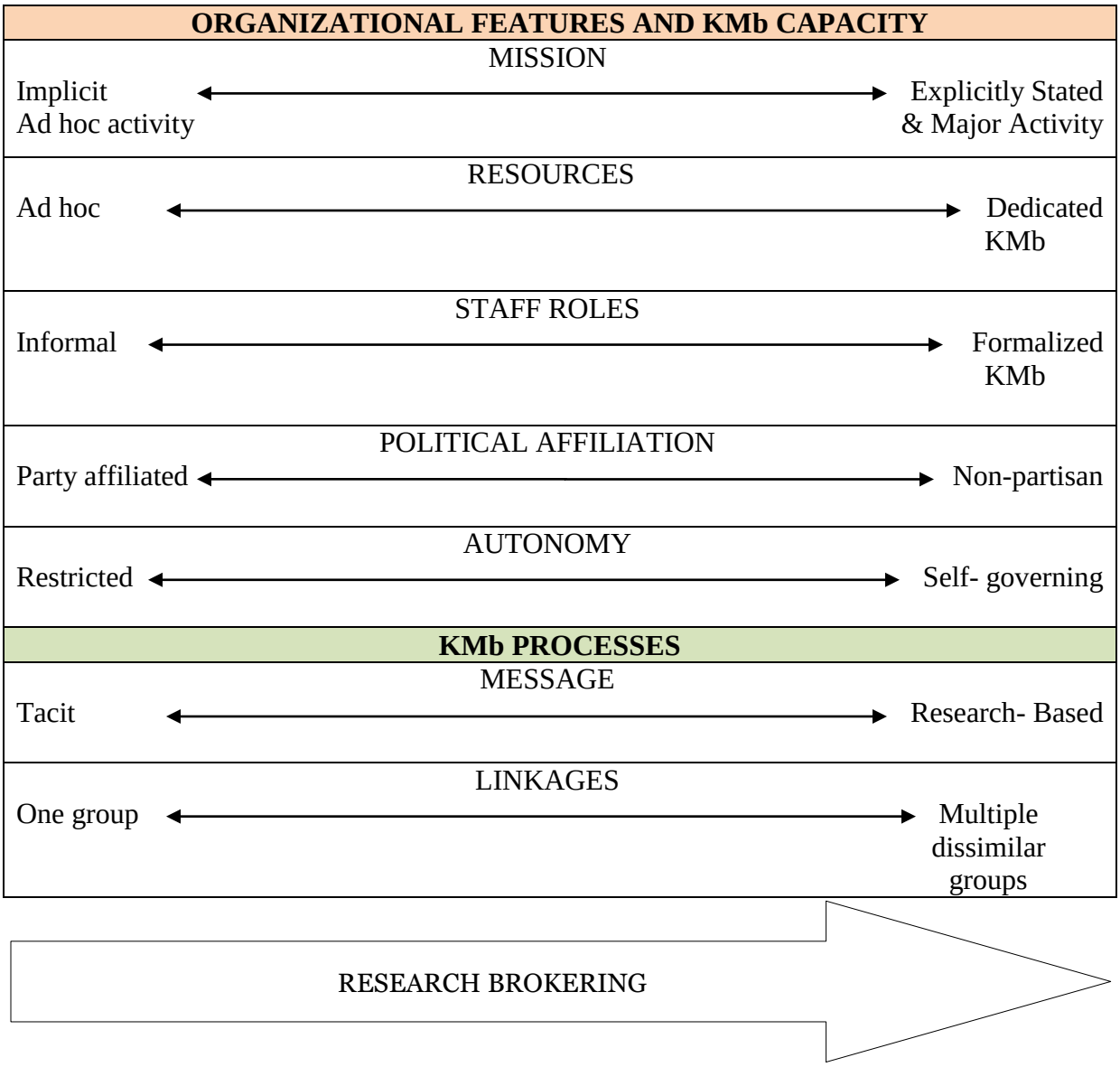

Figure 2. A framework of knowledge brokering characteristics

A framework of knowledge brokering characteristics. This paper also proposes a framework of knowledge brokering characteristics with seven dimensions: mission, resources, staff roles, political affiliation, autonomy, message and linkages (Figure 2).

Each of the dimensions from the framework is elaborated on:

1. **MISSION (Stated Intention & Major Activity)**: RBOs must have stated their intention to do KMb work deliberately. While many others may be doing this type of work in an ad hoc fashion or as a small part of what they do, RBOs explicit mandate and strategic direction involves a predominant focus on increasing research use in policy and practice in education. This means that KMb is a major activity of the organization. RBOs' involvement in research use goes beyond a rhetorical commitment. They go beyond "telling"; hence, they do not

simply give talks or make products, although these are important. They are also involved in more robust activities, such as building networks and so on.

2. **DEDICATED RESOURCES**: RBOs have committed resources allocated to strengthening connections between research, policy and practice in education. This can include formal roles, such as employees, funds to work with other organizations, or formal research capacity.
3. **STAFF ROLES**: RBOs have full-time employees with formalized KMb roles included in their job descriptions
4. **POLITICAL AFFILIATION**: RBOs have no overt political position. While no organization is completely neutral, some organizations are much more clearly politically affiliated while others strive for independence and political neutrality.[1]
5. **AUTONOMY**: KMb intermediaries should have some degree of independence and autonomy from the governance structure of the education system, through their external position in the system.
6. **MESSAGE**: RBOs use research as the main form of evidence in the messages they communicate. Ideally, this involves the mobilization of research knowledge from bodies of research rather than single studies.
7. **LINKAGES**: RBOs are defined by building relationships between research producers and research users, either practitioners or policymakers. The more diverse the target audiences and groups they are involved in, the stronger the RBO.

This framework might be useful in future research in order to distinguish between the different kinds of intermediaries that exist in education, especially in relation to their roles in KMb.

Methodology

The next section of this paper answers the following research question: What types of RBOs exist in Canada? The primary focus of this study is organizations whose major focus and activity is knowledge mobilization. Since virtually no empirical data exist on intermediaries in education, two of the challenges associated with this study were 1) how to define intermediaries, and; 2) how to create a systematic sampling approach that fairly identifies RBOs that exist across the national landscape. The next two sections describe the study's approach to addressing these challenges.

Methods

Inclusion criteria. This study used two inclusion criteria to determine educational RBOs for the sample:

1. Target Audience: KMb intermediaries are organizations who link both research producers and research users, and;
2. KMb Related Mission Statement: KMb intermediaries are organizations where KMb is a major activity of the organization. Priorities of organizations are often reflected in their

mission statements, goals and strategic plans (Bart & Tabone, 1998; Morphew & Hartley, 2006); therefore, to be included in the sample, organizations' mission statements, goals and/or strategic plans must be explicitly related to knowledge mobilization in some way and to increasing connections between research, policy and practice (although these aims might be articulated using different terminology).

Organizations that met both criteria were included in the sample.

Sample selection. Maximizing diversity in the sample of multicase studies is suggested by many methodology scholars (Firestone, 1993; Merriam, 1998; Miles & Huberman, 1994; Stake, 2006). In order to accomplish this, this study utilizes purposeful sampling based on the typology of RBOs (Table 3) to compare and contrast the many approaches to research mediation that exist across the Canadian education sector. After disaggregating the four broad categories of RBOs, there are 14 different types of organizations. Of these, three types, textbook publishers and instructional vendors; media organizations; consulting companies, are not conducive to this study because they are not primarily concerned with research use. Therefore, 11 different types of RBOs from the typology were included in this study.

Three sampling strategies were utilized to ensure systematic sample selection and consider a majority of Canadian educational organizations.

Sampling strategy one: Using the Ki-Es-Ki to determine the Canadian sample. For over 35 years the Canadian Educational Association (CEA), a national educational organization, has published the KI-ES-KI Handbook – Directory of Key Contacts in Canadian Education. The KI-ES-KI contains over 4,000 individuals and organizations involved in the Canadian education sector. It includes contact names, addresses, telephone numbers, fax numbers, e-mail addresses and websites of departments of education, educational organizations, universities and colleges, school districts, faculties of education and federal departments and agencies, and education publications The contact list of educational organizations provided by the KI-ES-KI was one the main source used to find and contact intermediaries in Canada (Table 4 shows the relevant categories from the KI-ES-KI to this study).

Four hundred and eighty-three Canadian educational organizations were considered using this sampling strategy by visiting websites to determine if organizations met the two inclusion criteria.

Table 4

Categories of educational organizations in KI-ES-KI

CATEGORY	NUMBER OF ORGANIZATIONS (N)
Departments of Education	21
School Authorities	12
National Organizations	179
Provincial Organizations	177
Parents Associations	15
School Trustees Associations	17
Superintendent Associations	31
Teachers Associations	31
TOTAL	483

Table 5

Internet search terms

Canada	Education	Organization	Research	Use	Collaboration
Canadian	K-12	Agency	Evidence	Utilization	Partnerships
	Secondary Schools	Intermediary	Studies	Mobilization	Networks
		Knowledge Broker		Impact	

Sampling strategy two: Internet searching. In addition to the KI-ES-KI, a second sampling strategy utilized systematic searching of major search engines (e.g. Yahoo, Google) as another way to map RBOs across Canada. Combinations and permutations of key terms (Table 5) were utilized.

Internet searches were recorded in order to use each search engine in a systematic way (Table 6). Organizations that met both the target audience and mission statement inclusion criteria were included in the study.

Sampling strategy three: Organizations arising from empirical studies in RSPE. A third strategy for finding RBOs was through Dr. Levin's Research Supporting Practice in Education Program (RSPE) at OISE (more information on this work is available at www.oise.utoronto.ca/rspe). This program includes empirical studies as well as activities that involve RBOs. Canadian RBOs from the empirical studies of RSPE that meet both the target audience and mission inclusion criteria were included in the sample.

Sample. Three sampling strategies resulted in 541 potential organizations across Canada that were considered for inclusion in this study. Twenty-four were excluded because they did not have websites listed in the KI-ES-KI, and 67 were excluded because they were French and had no English website version.[2] The 450 remaining websites were each visited in order to determine whether organizations met the target audience and mission statement inclusion criteria. Table 7 shows the results from the application of all three sampling strategies.

Table 6

Examples of search strings

(education*) AND (organization) AND (research) AND (use)
(education*) AND (agency) AND (research) AND (use)
(education*) AND (intermediary) AND (practitioner*) AND (research) AND (use)
(education*) AND (knowledge broker) AND (profession*) AND (research) AND (use)
(K-12*) AND (organization) AND (research) AND (use)

Table 7

Sampling 450 Educational organizations' websites to determine if they are RBOs

Sampling Strategy		Possible Sample	Final Sample			Criteria 2	Criteria 1: Target Audience						
		Total	Excluded	Possible	Included	KMb Miss.	No Audience	Publisher	Business	Producers	Users	Links P&U	Youth
1. KI-ES-KI Category	School Authorities	6	6	0	0	0	0	0	0	0	6	0	0
	Departments of Education	19	18	0	1	0	0	0	0	0	18	1	0
	National Organizations	176	156	13	7	7	63	16	0	38	23	22	14
	Provincial Organizations	125	100	4	21	23	20	0	5	21	51	25	3
	Parents Associations	10	10	0	0	0	0	0	0	0	10	0	0
	School Trustees Associations	12	12	0	0	0	0	0	0	0	12	0	0
	Superintendent Associations	24	23	0	1	1	0	0	0	0	23	1	0
	Teachers Associations	22	21	1	0	1	0	0	0	0	21	1	0
	Federal Crown Orgs	15	14	0	1	1	0	0	0	14	0	1	0
2. Internet Searches	Miscellaneous	12	6	0	6	6	0	0	0	4	2	6	0
	Think Tanks	27	22	0	5	20	0	0	22	0	0	5	0
3. RSPE		2	0	0	2	2	0	0	0	0	0	2	0
	Total	450	388	18	44	61	83	16	27	77	166	64	17
	%		86	4	10	14	18	4	6	17	37	14	4

Out of the 450 organizational websites considered for the sample, 44 organizations (10%) met both inclusion criteria and were included as RBOs in the study. Most of the think tanks included in the sample cover various areas of social policy, not just education. Think tanks were included when a major area of their organization targeted education. The final sample shows the various types of RBOs that exist across Canada according to the RBO typology (Table 8). Governmental RBOs comprise 16% of the sample (3 national organizations, 3 from Ontario and 1 from Manitoba). The majority of RBOs across Canada (71%) are not-for-profit organizations. Twelve of these not-for-profit organizations are issue based (topics include learning disabilities, mental health, literacy and early childhood education and development). Membership RBOs, organizations that are funded by their members, constitute 14% of the RBOs across Canada.

Scope and distribution of educational RBOs across Canada. RBOs are located in nine provinces in Canada (Figure 3). Thirty percent of Canadian RBOs were national in their scope. Thirty-nine percent of the sample was from Ontario, which is not surprising given the fact that approximately 40% of the Canadian population is in Ontario. RBOs in the Maritime provinces comprised almost ten percent of the sample.

Table 8

Sample of RBOs in Education across Canada (Appendix A elaborates on acronyms)

CATEGORY	TYPE	SAMPLE	N
Governmental RBOs N= 7	General governmental	CMEC, MERN	2
	Provincial ministry research branches	ERESB	1
	District level research services teams	E-BEST	1
	Evaluation, standards organizations	CSC, EQAO	2
	Funding Agencies	SSHRC	1
Not-for-profit RBOs N= 31	General not-for-profit	CCBR, CCL, Galileo, SAEE, TLP, CEECD	6
	University research centers	CRRU, HC, HELP, RI, RSPE, SKE-ECD	6
	Advocacy organizations	P4E	1
	Issue Based organizations	EYEON, HANEN, LCNB, LDAC, LDANS, LDAO, LDAS, LEARN, LiteracyBC, the Centre, PREVNet, SK Literacy	12
	Think tanks	AIMS, CCPA, CD Howe, CPRN, Fraser, SQE	6 0
For-profit RBOs	Textbook publishers, vendors	TYPE EXCLUDED	
	Media organizations	TYPE EXCLUDED	
	Consulting companies	TYPE EXCLUDED	
Membership RBOs N= 6	Professional organizations	CODE	1
	Network organizations	AERO, CCKM, CEA, MCLE, ORION	5
TOTAL			44

Figure 3. National distribution of research brokering organizations in Canada.

Discussion and Implications

Providing clear definitions and examples of how an organizational population is 'intermediary' allows others to contextualize how the literature relates to their area. While the use of many terms and models associated with research mediation obscures a clear understanding of the field, consensus on these issues is unlikely especially in light of sector specific language. Regardless of the term or model used, it is important to provide clear definitions, descriptions and examples, so that diverse audiences can contextualize the information arising from the literature. The more important issue (beyond debates about terminology and frameworks) is the need for further empirical work on what these organizations actually do.

The sparse empirical work that does exist suggests a focus on passive transmission rather than capacity building or actionable messages, with virtually no attention given to evaluation of KMb efforts. Current studies suggest that even among intermediaries, much of KMb work focuses on transmission of research reports or summaries without a focus on actionable messages. There is little attention given to capacity building among both intermediaries and groups that they work with. Across studies, there was also virtually no evaluation related to KMb and the impact of various initiatives. Where impact

measures did exist, the relationships between different KMb strategies and outcomes were unclear.

More empirical work investigating RBOs is needed in order to better understand research brokering in education. More empirical work is needed to map the activities of intermediaries in order to better understand the structures and processes of research brokering. This will provide a necessary foundation to develop concrete tools and measures to assess KMb efforts and the impact of this work. Exploring the effectiveness of the various strategies, processes and activities will be an important step to guiding future improvement initiatives.

The hypotheses about RBOs offered in this paper will also need to be interrogated empirically. The typology of RBOs, as well as the framework of brokering characteristics, provides scaffolding to explore the similarities and differences among these diverse organizations. A necessary first step to developing our understanding of these underexplored roles was to discover the range of intermediaries that exist in Canada.

Conclusion

If empirical data reinforce what many suspect, intermediaries have the potential to enhance KMb through a unique ability to span and connect the many balkanized organizations, departments and stakeholder groups that comprise our education system. Despite the many challenges associated with the work of intermediaries spanning diverse contexts, the potential benefits of research mediation in improving public services should not be underestimated. Professionals in both research-producing and research-using contexts might not have the dedicated time necessary to undertake KMb initiatives in addition to their other professional responsibilities without support, even if there is considerable desire and organizational readiness to do so. In these cases, the dedicated resources and specialized knowledge about research brokering that an intermediary provides might be an asset to implementation of KMb efforts.

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Notes

[1] Some have interrogated this element of the framework, stating that the most effective intermediaries are often advocacy groups and those with partisan missions. I owe this point to Judy Sebba, a well-known scholar from the UK.
[2] The principal investigator is not bilingual and, hence, did not have the proficiency to conduct analysis in French

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Appendix A: Organizational Acronyms and Websites

TYPE	ORGANIZATION	ACRONYM	WEBSITE	PROVINCE
1.1.0	Council of Ministers of Education of Canada	CMEC	http://www.cmec.ca/Pages/splash.aspx	National
1.1.0	Manitoba Education Research Network	MERN	http://www.mern.ca/index.asp	MB
1.1.1	Ontario Research Strategy and Evaluation	ERESB	http://www.edu.gov.on.ca/eng/research/strategy.html	
1.1.2	Evidence-Based Education Services Team	E-BEST	http://www.hwdsb.on.ca/e-best	ON
1.1.3	Curriculum Services Canada	CSC	www.curriculum.org	National
1.1.3	Education Quality and Accountability Office	EQAO	www.eqao.com	ON
1.1.4	Social Sciences and Humanities Research Council	SSHRC	www.sshrc.ca	National
1.2.0	Centre for Community Based Research	CCBR	http://www.communitybasedresearch.ca	ON
1.2.0	Canadian Council for Learning	CCL	www.ccl-cca.ca	National
1.2.0	Galileo Network for Leadership in Learning	Galileo	www.galileo.org	AL
1.2.0	Society for the Advancement of Excellence in Education	SAEE	www.saee.ca	ON
1.2.0	Society for Quality Education	SQE	www.societyforqualityeducation.org	ON
1.2.0	The Learning Partnership	TLP	www.thelearningpartnership.ca	ON
1.2.1	Center of Excellence for Early Childhood Development	CEECD	http://www.excellence-earlychildhood.ca	QC
1.2.1	The childcare resource and research unit	CRRU	http://www.childcarecanada.org	ON
1.2.1	Harris Centre	HC	http://www.mun.ca/harriscentre	NFLD
1.2.1	Human Early Learning Partnership	HELP	http://www.earlylearning.ubc.ca	BC
1.2.1	Research Impact	RI	http://www.researchimpact.ca	ON
1.2.1	Research Supporting Practice in Education	RSPE	www.oise.utoronto.ca/rspe	ON
1.2.1	Strategic Knowledge Cluster on Early Childhood Development	SKE-ECD	http://www.skc-ecd.ca/home.html	QC
1.2.2	People for Education	P4E	http://www.peopleforeducation.com	ON
1.2.3	Early Years Education Ontario Network	EYEON	http://eyeonkids.ca/	ON
1.2.3	The Hanen Centre	HANEN	www.hanen.org	ON
1.2.3	Literacy Coalition of New Brunswick	LCNB	http://www.nb.literacy.ca/about.htm	NB
1.2.3	Learning Disabilities Association of Canada	LDAC	http://www.ldac-acta.ca/	National
1.2.3	Learning Disabilities Association of Nova Scotia	LDANS	http://www.ldans.ca/	NS

1.2.3	Learning Disabilities Association of Ontario	LDAO	http://www.ldao.ca	ON
1.2.3	Learning Disabilities Association of Saskatchewan	LDAS	http://www.ldas.org	SK
1.2.3	Leading English Education and Resource Network	LEARN	www.learnquebec.ca	QC
1.2.3	Literacy BC	LiteracyBC	www.literacybc.ca	BC
1.2.3	Provincial Centre of Excellence for Child and Youth Mental Health	the Centre	www.excellenceforchildandyouth.ca	ON
1.2.3	The Promoting Relationships and Eliminating Violence Network	PREVNet	http://prevnet.ca	National
1.2.3	Saskatchewan Literacy Network	SK Literacy	www.sk.literacy.ca	SK
1.2.4	Atlantic Institute for Market Studies	AIMS	http://www.aims.ca/en/home/default.aspx	NS
1.2.4	Canadian Centre for Policy Alternatives	CCPA	www.policyalternatives.ca	National
1.2.4	CD Howe Institute	CD Howe	http://www.cdhowe.org	National
1.2.4	Canadian Policy Research Networks	CPRN	http://www.cprn.org	National
1.2.4	The Fraser	Fraser	www.fraserinstitute.org	National
1.4.1	Council of Directors of Education	CODE	http://www.ontariodirectors.ca/	ON
1.4.2	Association of Educational Researchers of Ontario	AERO	http://www.aero-ontario.org	ON
1.4.2	Canadian Centre for Knowledge Mobilization	CCKM	www.cckm.ca	National
1.4.2	Canadian Education Association	CEA	www.cea-ace.ca	ON
1.4.2	Manitoba Council for Leadership Development in Education	MCLE	http://www.mcle.ca/index.php	MB
1.4.2	The Ontario Research and Innovation Optical Network	ORION	http://www.orion.on.ca/	ON