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Introductory Chapter

Joining Worlds: Knowledge Mobilization and Evidence-Informed Practice

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Abstract

In this volume's opening chapter, *Joining Worlds: Knowledge Mobilization and Evidence-Informed Practice*, chapter authors and book editors Joel Malin and Chris Brown provide relevant background and describe the purpose of the volume. It includes a definition of evidence-informed practice (EIP) and outlines challenges and benefits of making EIP a reality in schools and school systems. It also argues that brokerage is a necessary and high-leverage strategy for doing so. Several additional key terms are defined and explained, and the book's conceptual framework is introduced – it sets out three key roles for brokers and draws attention to several key dimensions along which they vary. The book then provides a preview of the book's remaining contents.

Keywords: knowledge mobilization, brokerage, research utilization, evidence, boundary crossing

Introduction

There are many ideas about what high quality education is and ought to be, and lively and crucial debates about how we might best bring about educational improvement. We do not claim through this book to fully resolve these vital debates. Nevertheless, we and contributors to this book **are unwaveringly committed** to a simple yet powerful idea that has been gaining purchase in various quarters around the world: that educational practice, as a general principle, should be *evidence-informed*. To the extent that we can help to make this aspiration a more consistent reality, we submit, educational practice will ever tend in the direction of progress and improvement.

Along these lines, in fact, a broad and international push is now underway to strengthen the connections between educational research and practice (e.g. Coldwell et al., 2017; Hammersley-Fletcher & Lewin, 2015). If educators are more research engaged and connected, we and others have reasoned, teaching and learning improvements are likely to follow. Indeed, evidence to support this assumption is emerging (Goldacre, 2013; Mincu, 2014; Supovitz, 2015; Wisby and Whitty, 2017; Rose et al., 2017). Such a focus, of course, is not exclusive to education – we can now see strong efforts across sectors to bring about evidence-informed policy and practice (e.g. Nutley et al., 2007).

So far, so good. However, plenty of evidence also discloses it is no small task to broadly strengthen research-practice connections, to consistently bring about evidence-informed policy or practice. What gives? A lot, actually. We are most certainly not dealing with a case of simple problem, simple solution. To the contrary, we are facing a 'wicked' or 'sticky' problem requiring understanding of and tending to different aspects of the educational ecosystem, and the undertaking of various efforts through which they might be brought into closer alignment, into mutualistic connections.

Though *disconnects* between research and practice are multiply caused, at root are deep and thorny social, cultural, and structural divides: We can see longstanding and sizeable boundaries between the professionals who inhabit the realms of primarily 'research production' (e.g., universities) and those who inhabit primarily 'research use' (e.g., K-12 schools and districts) contexts (Caplan, 1979; Levin, 2013). Varied 'solutions' are possible, but at their center they do or should share an emphasis upon somehow spanning these unproductive boundaries for mutual benefit (i.e., better research, better practice, heightened sense of collective responsibility, enhanced infrastructure for educational improvement). Before we introduce and frame these various solutions, however, we believe a bit more problem analysis is in order.

On a practical level, research-practice gaps appear in several ways. Taking practitioners' perspectives, the most conspicuous difficulties concern the (in)accessibility, (ir)relevance, and (un)timeliness of much research (Hering, 2016). Regarding access, for instance, academic researchers often merely pursue publication via scholarly outlets (Cook, Cook, & Landrum, 2013; Goldacre, 2013) and do not further aim to promote or disseminate it—or, perhaps they make attempts, but to no or little avail. Meanwhile, K-12 educators do not typically read such work (for one, most of it is restricted access—part of the *accessibility* issue; Saunders, 2015). Compounding this, much research is viewed by educators as lacking clear relevance and actionability (Lysenko, Abrami, Bernard, Dagenais, & Janosz, 2014). Finally, concerning timeliness, even actionable information might be unfamiliar to would-be beneficiaries at the time it is needed (Sarewitz & Pielke, 2007).

Compounding these issues, educators tend to highly value information that is integrated in nature – for instance, evidence syntheses that can guide thinking and decision-making over and above more narrow sources (e.g., a single study addressing a narrow research question)

(Hubers & Poortman, 2017; Malin & Paralkar, 2018). Yet, as a recent *Nature* editorial points out, the production of research syntheses is not incentivized in the academic sphere (Reward Synthesis, 2018, June 20). Thus, already we can see major issues, both at the level of individual studies and at the level of more holistic and broad-spanning evidence synthesis. And, it seems plain, the status quo will not solve such issues.

More deeply, there are social conflicts, tensions, and histories demanding consideration. First, in some contexts educational goals/standards and expectations have been churning so rapidly that educators have come to rely more heavily on their own beliefs than those of others (Lortie, 1975; Lysenko et al., 2014). Also, the implied intellectual superiority of academia over practice can deeply impair research-practice relationships (Lysenko et al.) and, we contend, ultimately reduce both the quality and the influence of educational research production. Related to this, educators' tacit use of knowledge to support their professional judgments is commonly painted or internalized as being inferior to other knowledge sources (Hammersley, 2004), when actually it is often optimal (Leonard & Sensiper, 1998; Brown 2017). Accordingly, and as we will elaborate later in this chapter, we adopt a definition of research-informed practice that embraces and appreciates the integration of local and tacit knowledge alongside 'research knowledge.'

To summarize, what is demanded by practitioners is not typically being delivered by academics, and, related, academics' research programs are often not as well tuned to resolving clear 'problems of practice' than they could or should be. The issues we pointed out, and others as well (see Lysenko et al., 2014; Malin, 2016), are considerable and daunting indeed, however they are not insurmountable. We contend that the most promising approaches involve (1) some form of intermediation (i.e., a 3rd party, a mediator, a broker); and/or (2) boundary spanning,

connective actions undertaken by members or research and practice communities. Within these broad categories, too (as you will see), is a good deal of variety. In fact, a variety of individuals and entities—operating variously but fundamentally as **knowledge mobilizers**—are in important ways doing such work right now.

To illustrate, let's return to the evidence synthesis issue – practitioners and policymakers desire such material, but academics (representing traditional 'knowledge producers'), other than a few notable exceptions (e.g. England's EPPI-centre), tend not to be producing them. Indeed, in some contexts, demand for such info may be at all-time highs – in the United States, for instance, federal policy includes "evidence-based" and "research-based" program selection requirements (Farley-Ripple, Tilley, & Tise, 2017). As a consequence, we have witnessed other individuals and entities stepping into the void to meet these demands – for instance, the *What Works Clearinghouse* and the *Best Evidence Encyclopedia* in the U.S and the Education Endowment Foundation in the UK. We also see prominent mediators like Kim Marshall (see chapter 1), who in response to educators' demands specifically preferences "the pulled together stuff" (K. Marshall, personal communications, June 16, 2016) as each week he scours the literature for material to highlight for school principals and other educators.

Thus far what we are describing is happening primarily in the 'mediation' context, which plays a crucial—though not monopolistic—part in facilitating the mobilization of knowledge.

Levin (2013) developed a framework representing the major dimensions of knowledge mobilization in education. In his view, educational knowledge mobilization occurs within three overlapping contexts – (1) the production of educational research ("production" context); (2) the settings in which the research is typically applied ("use" context); and (3) the "mediation" context—comprising all those who attempt in some way to better connect the production and use

contexts (e.g., the aforementioned examples, plus think tanks and advocacy organizations, and some foundations). He also noted how the full process and all actors within are influenced by broader institutional, social, legal contexts, emergent technologies, and so on. Levin also emphasized overlaps between these contexts – for instance:

- some researchers can serve to repackage or otherwise mobilize their research and/or have reinvented their scholarship to occur in concert with educators
- some practitioners are producing and sharing important knowledge
- and some advocacy organizations are also producing 'knowledge' that fits their ideological proclivities.

This book takes up all of these possibilities (focusing specifically on the world of educational practice as opposed to the broader 'policy' world), attempting to make sense of and sharpen our thinking regarding knowledge mobilization in its various forms in varied educational contexts.

Though the key role of knowledge brokers in education (and other sectors; Davies, Powell, & Nutley, 2015) is increasingly noted, in education the lion's share of attention to date has been directed toward policy-focused think tanks and advocacy organizations. Lubienski, Scott, and Debray (2011), for example, have described a vast network of intermediary organizations in the U.S., many purportedly aiming to enhance decision makers' research use. Most such organizations, however, focus narrowly (e.g., promoting school choice reforms), strive to influence state and national policy more than teaching practice, and/or deliver messages that are driven more so by ideology than by rigorous, scientific evidence (Malin & Lubienski, 2015; Lubienski et al., 2011).

As a whole, we suspect such individuals and entities tend to add to, rather than subtract from, the complex and considerable issues that K-12 teachers and other educators face. A

growing number of individuals and entities that serve brokerage functions, however, <u>do focus</u> <u>directly</u> on informing or improving educational practice and/or co-constructing useful, field-relevant knowledge. Because they have drawn less attention until now, in this book we have elected to focus intently on how they aspire to improve teaching and learning. We focus on those knowledge mobilizers (also referred as brokers, mediators, intermediaries, translators, and boundary spanners) who are key to connecting research and practice; in the process illustrating individuals and entities that primarily take up residence in each of the three major contexts Levin (2013) outlined. As such, we hope both to illuminate this 'brokerage' space (Farley-Ripple et al., 2017) as it currently exists, and to lay out some ideas regarding how it could be strengthened to more reliably and powerfully stimulate evidence-informed practice.

For this book we also adopt a broad and inclusive view of what it means to be research-informed, embracing the following definition of research-informed educational practice: "a combination of practitioner expertise and knowledge of the best external research, and evaluation-based evidence" (England Department for Education, 2014). Although not all will embrace such a definition or position the role of research in education in this way, we suggest doing so carries numerous benefits. Most importantly, it is *realistic:* Levin (2013, p. 16) points out that research is incapable of providing "recipes that can be blindly applied to practice. In many areas, there is simply not enough clear research knowledge to guide practice" (2013, p. 16). Likewise, Coldwell et al. (2017) argue, educators are unlikely to be persuaded to shift their practices by research evidence alone: such evidence must be reinforced by observed impacts and/or must be vetted by trusted colleagues discussing how it has improved practices/outcomes. Likewise, in our own research, we've noted that teachers' evidence use *in situ* is diverse and

integrated (e.g., Brown, 2017; Brown and Flood, 2018; Malin, 2016; Malin, Brown, & Saultz, under review).

The knowledge mobilization space too, as we will show, is diverse and dynamic. We take as our main task to examine knowledge brokers' diverse roles and functions and the ways in which their work strengthens, and/or could serve to further strengthen, the ties between research and practice communities and educators' abilities to function in evidence-informed ways. In doing so, we aim also to demonstrate the value and impact of those situated within this space, illustrating effective forms of brokerage while at the same time not shying away from legitimate challenges, conflicts, and tensions that can arise. This book's material, in turn, will benefit brokers themselves as well as those with whom they connect--thereby increasing/improving the use of research and other professional knowledge within education policy and practice.

In the remainder of this opening chapter, then, we do the following. First, we define key terms. Next, we introduce our conceptual framework, which serves both to organize the contents of the book and supports our analyses. We then preview the book's contents, and foreshadow intended contributions for readers from various vantage points.

Definitions

The following definitions guide us:

Evidence-informed practice is "a combination of practitioner expertise and knowledge of the best external research, and evaluation based evidence" (www.education.gov.uk, 2014).

Diffusion represents a process through which "an innovation is communicated through certain channels over time among the members of a social system" (Rogers, 1995, p. 5). It is rare however that innovations automatically spread like "ripples in a pond" (Hubers, 2018); likewise that knowledge will automatically flow through a school (ibid). Rather, effort is

required to encourage engagement and take up of new educational strategies and interventions.

Boundary Crossing. Hubers (2016, p. 73) notes that schools are made up of 'multiple, overlapping, communities of practice... When individuals are not involved in a certain community, it is difficult for them to pick up the talk or tasks of an unfamiliar community, because the meanings that are invested in them are rooted in unspoken, tacit understandings that have developed over a long period of co-participation'. As a result, discontinuities can often occur between the behaviors of those who participate in a community (and so have a shared history in relation to its specific tasks and knowledge-requirements or even a shared language or understanding of meanings) and those who do not. These discontinuities are referred to as boundaries. To cross these boundaries requires acts of brokerage. Hence

Brokerage is "a dynamic and complex set of actors, activities, motivations within which research is exchanged, transformed, and otherwise communicated" (Farley-Ripple et al., 2017, p. 13). This study focuses upon brokerage (vs. individual brokers).

Knowledge mobilization is one of several terms related to knowledge creation, movement, and sharing. We follow Davies, Powell, and Nutley (2015), who favored this term, applying it as "a shorthand for the range of active approaches deployed to encourage the creation and sharing of research-informed knowledge" (p. 2). We use knowledge mobilization to encapsulate a myriad of terms. In this sense our use is synonymous with the notion of the term K*, which was coined to reflect the myriad of terms associated with the concept of knowledge mobilization (Overseas Development Institute [ODI], 2012). Here the *

represents an acceptance of the plurality of terminology and provides an umbrella for notions such as knowledge transfer, knowledge utilization, knowledge dissemination etc.

Networks in education can be thought of as 'groups or systems of interconnected people and organizations (including schools) whose aims and purposes include the improvement of learning and aspects of well-being known to affect learning' (Hadfield et al., 2006, p. 5). Finally

Boundary objects are 'artifacts' that can be used to create and maintain common meaning across different communities of practice. Examples of boundary objects include documents, tools and manuals (Wenger, 1998).

Conceptual Framework for this Book

The conceptual framework, which serves to organize this book's content and supports our analyses, is essentially an integration of two main sources, Bush (2017) and Ward (2017).

Bush (2017) offers a typology of three main ways in which knowledge has been mobilized (i.e., *how*) in the educational landscape. He suggests, when we look at the various knowledge mobilizers in the educational space, they fit into three main 'roles.' These roles encompass those who:

- 1. create resources that distill and communicate evidence from research;
- 2. convene partnerships between researchers and practitioners; and/or
- 3. support practitioners to engage with evidence and test its impact locally.

We concur, and accordingly the three main sections of this book are organized in this manner.

Meanwhile, Ward (2017) developed a framework within which one can analyze and understand *why*, *what*, *whose*, and *how* knowledge is mobilized. Ward's framework developed from her cross-disciplinary analysis of 47 existing knowledge mobilization models. Here, asking

and answering four questions (e.g., "What type of knowledge is being mobilized?", p. 1) results in the formation of several subcategories. Relative to *what* knowledge, for example, Ward identified 3 categories (scientific/factual knowledge, technical knowledge, and practical wisdom) while noting that some models emphasize one type whereas others rely on a mixture. Relative to *whose* knowledge, Ward identified five categories while noting sometimes multiple groups are featured: professional knowledge producers, frontline practitioners, members of the public/service users, decision makers, and product/program developers. Table 1 provides a more detailed accounting of Ward's framework.

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Insert Table 1.1 here

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The analytic categories Ward arrived upon provide a powerful means of better understanding and drawing out distinctions among different knowledge mobilizers and mobilization approaches. Fundamentally, educational knowledge mobilizers are making various choices (sometimes reflexively, and thus far almost entirely without theoretical or empirical guidance), which ultimately will hold major implications (e.g., their appeal, audience, effectiveness). For example, we suggest knowledge featured by multiple groups (who) and presented in an integrative and two-way manner (what and how: e.g., setting out both empirical evidence as well as practical, how- and why-to knowledge; telling compelling stories; generating dialogue) is more likely to be perceived as socially robust and to move action. Accordingly, we are also interested in an element that sits outside Ward's (2017) and Bush's (2017) framework but that is, or ought to be, a consideration of all knowledge mobilizers—*impact*). The framework thus guiding us and contributors is as follows:

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Insert Figure 1.1 here

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Contributing authors have been asked, as is relevant to their topics, to apply the framework to assist them in considering and explicating the how, what and whose elements of the framework, and to more deeply describe their particular motivations—or, to describe the problem(s) that they are setting out to solve. They also have been asked to describe any evidence they have acquired regarding the impact of their activities. This aspect sits outside Ward (2017) and Bush (2017) frameworks but is represented in ours as an additional two-part question: Is knowledge actually being mobilized, and—if yes—to what effects?

The Organization of This Book

This book's first section addresses those who focus primarily upon "creating resources that distill and communicate evidence from research" (n. p.). These can include efforts to make research (and/or other knowledge sources) more accessible and practice-relevant for educational practitioners. Examples here include the George Lucas Education Foundation's Edutopia, Mr. Kim Marshall and his widely circulated Marshall Memo (Malin & Paralkar, 2017), and Harvard Graduate School of Education's Usable Knowledge. Likewise, some knowledge brokers have focused predominately on synthesizing existing (research) knowledge (see also Ward, 2017). For instance: England's EEF Toolkit, Australia's Evidence for Learning Toolkit, and Robert Slavin and colleagues' new Evidence for ESSA (USA). Likewise, educators and educational leaders can and do function as knowledge brokers within and beyond their organizations (Daly, Finnigan, Moolenaar, & Che, 2014; Datnow & Park, 2009), especially with the advent and acceleration of social media; these are topics of focus we also reserve for this portion of the book. This section

includes chapter contributions reflecting knowledge dissemination/communication in two nations (USA and England) that have been highly active with respect to their policy pursuit of evidence-informed practice, as well as a chapter that addresses the burgeoning influence of social media on educational practice.

Our second section addresses those who primarily seek to "convene partnerships between researchers and practitioners" (n.p.). We consider partnerships to ideally represent learning networks. Here, drawing on the work of Poortman and Brown (2017), we consider the nature of such learning networks as comprising teachers and research brokers who come together with the intention of improving teaching and learning through their engagement with research. As such partnerships involve facilitated processes that encourage interactive and collaborative engagement with research. We view certain research-brokering organizations (Cooper, 2014) and interventions/initiatives (e.g., the Knowledge Network for Applied Education Research initiative [KNAER] in Canada) as exemplifying these efforts and focus accordingly in this section. This section includes chapters that will collectively enable readers to more deeply understand the nature and potential of productive, boundary-spanning partnerships and professional learning networks.

Our third section addresses those who are principally concerned with "supporting practitioners to engage with evidence and test its impact locally" (n. p.). In our view, these include various efforts to strengthen educators' ability to identify, interpret, and conduct or co-conduct research. In education, a growing set of research-practice partnerships (Coburn & Penuel, 2016) and networked improvement communities (Bryk, Gomez, & Grunow, 2011) appear to exemplify this broad 'type', as do certain disciplined approaches to action or design-based research. This section includes contributions and invaluable insights from internationally-

recognized leaders of three different forms of research-practice partnerships which also place school leadership front and center. This section also includes a chapter which will help readers to see how pre-service educators could be prepared to thrive within such partnerships, and/or to independently and effectively engage with research while on site. This third section highlights what some might consider the most ambitious efforts, those aiming to empower and equip educations to be able to successfully conduct locally meaningful research.

In the final chapter, Christopher Lubienski analyzes the book's content and presents thoughts and comments regarding the future of research use.

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