Journal of Education Policy and Management Jun. 2022, No. 7, pp. 1-24 https://doi.org/10.53106/251889252022060007001



Refocusing the Lens on Knowledge Mobilization: An Exploration of Knowledge Brokers in Practice and Policy

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Abstract

We examine the process of increasing the integration of research and evidence into education practice and policy through the lens of knowledge mobilization. Using qualitative methods, we examine the experiences of knowledge brokers—those who facilitate the exchange of knowledge between individuals and organizations throughout the education sector so that we can frame knowledge mobilization to practice and policy more effectively. Our work highlights brokers' efforts to mobilize not only resources to be implemented, but also values, beliefs, and practices. We show that trust and affect are central to the deeply relational work of knowledge mobilization, which requires brokers to be attuned to the learning journeys and organizational, structural, and cultural contexts of practitioners and policymakers. Relationships between brokers and practitioners/policy makers were key not only in settings involving close research-practice partnerships, but across all levels of

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Manuscript received: Apr. 27, 2022; Accepted: Jun. 28, 2022

knowledge mobilization, even in large-scale online spaces. Implications of this refocusing of knowledge mobilization are discussed for both brokers and researchers.

Keywords: knowledge brokers, knowledge mobilization, research use

Introduction

A longstanding question in education has been how to increase the use of evidence to improve educational experiences and outcomes. Sometimes framed as how to reduce the "gap" between research and practice, this multidimensional goal demands more attention to the ways in which resources are accessed and employed in education settings. It also involves the design and deployment of resources on one hand, and the resulting outcomes on the other. Phrased this way, this process appears to be somewhat linear, with much emphasis being placed on the latter stages of the process, particularly how resources are used. This is sometimes framed as a need for research to *impact* practice, which initially sounds more concrete than research *use*. However, it can be difficult to observe and measure both impact and use. In a special issue on "Research Impact in Education," Farley-Ripple (2020) points out that "there appears to be a disconnect between what the field wants research impact to mean (improving educational outcomes) and what research impact actually means (influencing decisions)" (p. 4).

Stepping back, the terms *research* and *evidence* are similarly difficult to pin down. Research has been narrowly defined as "empirical findings derived from a systematic analysis of information, guided by purposeful research questions and method" (Asen et al., 2013, p. 40). Evidence has been understood more broadly and can refer not only to externally generated findings but also to, among other things, data generated by and about practitioners and their contexts (e.g., student data) (e.g. Finnigan et al., 2013). However, this distinction can become blurred when evidence is gathered as a part of an action research project or a Research Practice Partnership (RPP) between practitioners/policymakers and researchers. Further, practitioners can draw on evidence/research from sources beyond researchers. Instead, they may look to other practitioners/policymakers who have experience in a particular area, to one of the many intermediary organizations that publish research-based, practitioneroriented materials, or to social media sites that may distribute or combine a variety of resources (Finnigan et al., 2013; Galvin & Greenhow, 2020). For this article, we use the term *knowledge*, which we understand broadly as evidence and insights derived from research, data, or practical experience (i.e., technical or practical wisdom) (Ward, 2017). Therefore, we also account for the lack of a "shared understanding of what constitutes research evidence across various stakeholders" (Farley-Ripple, 2012, p. 788), and that many educators access ideas based on various forms of evidence (Finnigan et al., 2013).

Given that it is difficult even to pin down terms, it is perhaps not surprising

that the process of integrating evidence into practice and policymaking is also not straightforward. A linear model in which research is generated by researchers, distributed to practitioners and policymakers, and then employed in practice or policy decisions is first complicated by issues such as the language used by researchers (Vanderlinde & van Braak, 2010), capacity of districts, schools, administrators and practitioners to use research/evidence (Datnow & Hubbard, 2015; Neal et al., 2018; Palinkas et al., 2015; Penuel et al., 2017), applicability and relevance of research (Cherney et al., 2012; Lockton et al., 2019), and contextual concerns, such as schools' encouragement to use research and availability of funding (Brown & Zhang, 2016; Datnow & Park, 2019; Malin et al., 2020; Palinkas et al., 2014). Further, this model also fails to capture the full complexity of what occurs when practice is evidenceinformed (Datnow et al., 2022).

Prior research on knowledge mobilization helps unpack some of the ways the many parties engaged in bringing evidence-informed resources into practice accomplish the task. However, while much has been written in this field about the experiences of administrators and practitioners in this endeavor (e.g., Coburn et al., 2020; Farrell et al., 2019; Finnigan et al., 2013; Lysenko et al., 2016; Penuel et al., 2018), less has been done to unpack the complexities of the work of the knowledge brokers - those who are bringing and influencing evidence-informed knowledge into practitioners' and policymakers' worlds. Brokers could be individuals who bring knowledge into their own organizations, or individuals and organizations that bring knowledge into organizations of which they are not a part (e.g. Finnigan et al., 2021). This study focuses on the latter. With the aim of gaining a deeper understanding of this process, this qualitative study looks at the experiences of five knowledge brokers working in different realms of education with an explicit intention of influencing practice and policy.

Knowledge brokers facilitate the exchange of knowledge between individuals or organizations not directly connected (Weber & Yanovitzky, 2021). We examine how researchers, practitioners, and intermediaries construct and share a variety of resources with practitioners at a range of levels throughout the education sector – from classroom teachers to state policymakers to educators in out-of-school settings. Through this work, we seek to answer this research questions: *How can the experiences of knowledge brokers help us frame knowledge mobilization to practice and policy more effectively? What key aspects of knowledge mobilization enable brokers to successfully mobilize knowledge into practice and policy contexts?*

Literature Review

Research and Evidence Use

While "research use" may bring many affordances to education, it is a misconception that research findings directly impact policymakers' decisions or the actions of practitioners (Nutley et al., 2007). Instead, research is often used in "indirect, diverse, and subtle ways" (p. 34). Practitioners sometimes engage in *instrumental* research use, which includes direct use for decisions and a concrete application of research, requiring a translation of research into practitioner-accessible materials (Ion & Iucu, 2014). However, research is also used by practitioners to provide alternative perspectives on issues and to challenge theoretical assumptions. This represents a *conceptual* use of research (Farrell & Coburn, 2016). At other times, research may be used *strategically* or *symbolically* wherein practitioners may engage with research only tangentially (Estabrooks, 2001; Feldman & March, 1981; Honig & Coburn, 2007; Park et al., 2012).

Although research is sometimes delivered directly from researchers to practitioners (e.g., through workshops for professional development) or even coconstructed through RPPs, there are many other avenues by which research meets practitioners and policymakers. Practitioner-oriented publications, listservs, and organizations that create and/or disseminate evidence-informed practices are a few of the many ways research makes its way to educators and policymakers. By including in our understanding of what constitutes research use in educational practice "the explicit use of published research to support organizational decisions about programs and policies as well as less explicit and perhaps indirect use of research shaped by the brokering roles played by researchers, practitioners, and intermediary organizations" (Farley-Ripple et al., 2018, p. 242), we can begin to unpack the multidirectional flow of knowledge that informs research use.

When we consider the multiple ways practitioners and policymakers employ evidence in their practice, it makes sense to broaden our focus beyond a narrowly defined vision of what constitutes research or evidence. Evidence from research is often defined as "empirical findings derived from a systematic analysis of information, guided by purposeful research questions and method" (Asen et al., 2013, p. 40). In addition to research, Asen and colleagues (2013) identified five other broad types of evidence: (1) experience (i.e., firsthand knowledge, skill, or perspective derived from direct observation of or participation in activities), (2) testimony

(i.e., referencing the perspective of an individual or group), (3) data, (4) example (i.e., specific case used to illustrate typical or exceptional characteristics of an issue), and (5) law/policy (i.e., rules or regulations that permit or prohibit particular actions or programs). Particularly, earlier research has shown that educators access student performance data, school and district evaluations, non-academic student outcome data, reports from think tanks or federal and state departments of education, professional association periodicals and journals, conferences, books, popular press, educational blocs, and web-based clearinghouses or listservs (Farley-Ripple, 2012; Finnigan et al., 2013). However, many turn to people first (Fraser et al., 2018) and ask local experts, district administrators, higher education faculty, and staff at the same or other schools (Finnigan et al., 2013; Fraser et al., 2018). This amount of evidence available to educators highlights the importance of a more robust understanding of how knowledge is disseminated among and used by educators.

Knowledge Mobilization

To broaden our understanding of how research, information, and resources flow to practitioners in both practice and policy, we turn to research on knowledge mobilization. Broadly, knowledge mobilization is the process of moving knowledge to where it will be most useful (Ward, 2017). More specifically, Cooper (2014), focusing specifically on research evidence, defined knowledge mobilization "as intentional efforts to increase the use of research evidence ... in policy and practice at multiple levels of the education sector – between individual, organisational, and system levels" (p. 29). She described knowledge mobilization as an iterative and social process involving interactions among different groups or contexts (researchers, policymakers, practitioners, third party agencies, community members) to improve the broader education system (Cooper, 2014). Similarly, Phipps et al. (2016) posited that knowledge mobilization includes the push of research to nonacademic communities, the pull of research from non-academic communities, and the knowledge exchange between communities and the academy, including grappling with the selection of knowledge for each context (Moss, 2013).

Knowledge mobilization refers to a set of practices to make stronger connections between research, policy, and practice (Levin, 2011). The framework of knowledge mobilization recognizes that knowledge does not flow top-down, and the contexts in and purposes for which knowledge is assembled, synthesized, translated, and applied all matter (Moss, 2013). Indeed, three interconnected and sometimes overlapping contexts shape the mobilization of knowledge: (1) the context in which research Marie Lockton, Anita Caduff1, Martin Rehm, Alan J. Daly Refocusing the Lens on Knowledge Mobilization 7

is produced, (2) the one in which research is used, and (3) the one in which all mediating processes between the former two exist (Levin, 2011). Various knowledge mobilization strategies exist to bridge these contexts, including publications (academic and non-academic), events (academic and non-academic), and multiple kinds of networks to support knowledge use and mobilization efforts (Cooper et al., 2018).

Notably, the process of knowledge mobilization is not linear as often conceptualized, but multidirectional, fluid, and can be collaborative and co-productive with a continued shaping and re-shaping of knowledge between parties (Ward, 2017), and can even include the co-production of research relevant for community action (Phipps et al., 2016). In a review of studies on knowledge mobilization, Ward (2017) even found it challenging to identify knowledge receivers in some of the studies as the various stakeholders worked collaboratively.

The Role of Knowledge Brokers in Knowledge Mobilization

Knowledge mobilization research often emphasizes the interactional nature of the process (Phipps et al., 2016; Ward, 2017). Hence, knowledge mobilization occurs within social networks. A social network reflects a set of individuals and the relationships among them (Wasserman & Faust, 1994). An individual's position in a social network, the network's structure, and the quality of ties determine, among other things, their access to resources (Coleman, 1988; Granovetter, 1973; Lin, 2001). In these structures, one such position is a broker, which is an individual that connects two otherwise disconnected others. Through this brokering relationship, resources can flow and be shared. Brokers in the knowledge mobilization space play key roles, as often educators and policymakers will turn to others when looking for new resources, evidence, and ways to improve their professional practices and policies (Finnigan et al., 2013; Finnigan et al., 2021; Fraser et al., 2018; Kolleck, 2014; Penuel et al., 2017). Therefore, the overall social structure of a network and the positions of individuals within that network, such as a broker, are critical to the movement of knowledge.

Informal and formal social networks and the role of brokers have been found to facilitate and constrain, *inter alia*, the exchange of best practices (Daly & Finnigan, 2012), educators' access to expertise (Frank et al., 2004), and research use (Brown et al., 2016). Likewise, the quality of relationships between brokers, such as intermediary organizations and educational organizations, are essential for knowledge mobilization (Farrell et al., 2019; Penuel et al., 2017). For example, Farrell et al.

(2019) showed that, while a district department's capacity was relevant to the use and implementation of a knowledge broker's ideas, so was the nature of the interactions between the department and the knowledge broker. They showed that interactions that provide opportunities for collective sense-making (e.g., providing professional development, collaborations, and the broker's participation in department meetings) contributed to the department's organizational learning. Informal relationships further contributed to the successful implementation of the broker's ideas (Farrell et al., 2019). Along with these studies highlighting educational organizations and practitioners, there is also a growing body of work around social networks, brokers, and policymakers in state level agencies (Scott et al., 2017). Expanding on our knowledge of knowledge mobilization processes from the brokers' perspectives is vital as "research use at one stage of the decision process" (Coburn et al., 2020).

Knowledge Mobilization in Action

Given what we know about how practitioners and policymakers use evidence and the ways they rely on informal social structures for resources, this article expands our understanding of the complexities of knowledge mobilization and the brokers who create and move information and resources to, through, and with practitioners. A more thorough examination of this work can provide much-needed insights for a more robust theoretical framing and theory building.

Methods

Participants

The participants for this study were selected purposefully to represent organizations working at different levels of the educational system across the United States, from the K-12 classroom to non-traditional education settings to state-level leaders to researchers. Requirements for participation were that the organizations maintain an equity focus in that their mission is to improve education for students from underserved communities through the movement of knowledge and resources to practitioners and policymakers. A further requirement was that they were well-known and recognized locally and nationally as experts in their respective fields, including science, mathematics, multilingual learners, instructional design, and project-based Marie Lockton, Anita Caduff1, Martin Rehm, Alan J. Daly Refocusing the Lens on Knowledge Mobilization 9

learning. As such, their intended audiences trusted their expertise. Selection began with two nationally recognized organizations working in different sectors of the educational system, then proceeded to each of the remaining three organizations, ensuring with each selection that the participant represents a new, minimally overlapping sector. Participants included:

- An institute founded by researchers to partner with policymakers and education leaders with the aim of increasing equity for students.
- A university institute whose researchers develop research-based STEM teaching practices, create resources for educators, and broadly share lessons learned with the wider education community.
- An informal STEM learning space involving a team of researchers and practitioners who share findings from their innovative youth work with the local and wider research, policy, and practice communities.
- An intermediary organization working with administrators and practitioners to translate research into practice and promote successful models of educational design and decision making.
- A teacher education and professional development organization of practitioners working with other practitioners to help them improve educational design and pedagogy.

While all participants were recognized experts in their fields, they varied in their experience and infrastructure to establish their knowledge mobilization resources with the right audience at the right time. Some prioritized changing education for as many students as possible, and, accordingly, their infrastructure and activities were geared towards getting their resources into many hands. Others prioritized conducting research and improving their educational programs. These groups were adding knowledge mobilization to their core functions, sharing lessons learned and best practices with the aim of engendering broader educational change, particularly outside of traditional academic circles. Consequently, the experience in mobilizing knowledge varied across our participants.

Each organization selected 2-5 participants who were most directly responsible for knowledge mobilization within their organizations, and meetings were conducted with these small teams.

Data Collection

Data collection for this study consisted of 18 hours of meetings/semi-structured interviews. All meetings were recorded and transcribed verbatim.

The research team met with each participant organization for one hour each to frame the research and gain initial background information from participants on their experiences with knowledge mobilization. Responses were used to structure the next round of semi-structured interviews, which lasted 1.5 hours with each participant. Participants were asked about their organizational goals, their current and desired audience, the kinds of resources they produce, the process they engage in to produce their resources, the ways in which they share these resources, and their current successes and barriers in resource sharing. The precise wording of the questions was tailored to each participant but mapped to the topics listed above. These topics were chosen to meet the research goals of generating much-needed knowledge of the experiences and perspectives of those working at this stage of knowledge mobilization (which is currently lacking in the literature) by eliciting rich descriptions from participants about this work. Two one-hour follow-up interviews were conducted with one participant on the same topics.

After data analysis, a final round of hour-long interviews was conducted with each participant for member-checking and further input from them.

Data Analysis

Our analysis was iterative and concurrent with data collection (Miles et al., 2014). Because the goal of the research questions was to build theory from broad questions, analysis involved a heavy emphasis on inductive coding (Strauss & Corbin, 1998). Members of the research team compiled a list of a priori codes and definitions from the research questions and prior research on evidence/knowledge mobilization and social network literature. Each member coded the same segments of transcripts, noting questions, thoughts, and possible emergent codes. The research team then met to compare coding, discuss discrepancies, and make decisions based on their notes. Emergent codes were added, and the process was repeated until the research team reached consistent reliable coding and agreed on the codes and definitions (Merriam & Tisdell, 2016). Then all transcripts were coded, and the research team compared themes across participants. Member checks helped ensure the validity of the findings (Creswell & Miller, 2000), as all participants confirmed the findings and provided additional depth on the topics.

Findings

By probing in-depth the experiences of those who produce and share educational

resources with practitioners and policymakers, we identified several themes pointing to the highly relational aspects of knowledge mobilization in education. First, this work involves the deep intertwining of mindsets and practices. Second, organizations that have found long-term success in this work are mindful of the learning trajectory of their learners. Further, this work involves attunement to the affective experiences audiences have when engaging with the resources knowledge brokers provide. These themes highlight the ways the relational aspect is central to the work.

Prioritizing Mindsets and Practices over Resources in Mobilizing Knowledge

None of the participants conceived of their primary goal as one of sharing resources. Instead, the production and sharing of resources were in the service of shifting both the mindsets and practices of others. They all had explicit or implicit goals of changing the way others thought about particular aspects of education and acted within those realms. For example, one group wanted people to rethink what high-quality instruction looks like and shift teacher education and professional development for teachers to focus on particular classroom practices.

At times, mindsets were at the forefront of the ways participants conceived of their work. One participant stated, "we want districts to fundamentally change their perspective and change how they think about approaching certain problems." Another was concerned with shifting the mindset of each classroom teacher, explaining that "there is so much misunderstanding of [content]. Our goal is to help everyone see it as a learning subject. [...] That takes a redefinition of a teacher's relationship with [the content]."

This desired shift in mindset generally involved a shift in mindsets about practices. At the school level, a participant spoke about striving to produce work that "changes hearts and minds and challenges [people's] beliefs about what school should be." Even backing all the way out to the policy level, our participants were striving to take "monitoring and evaluation out of the compliance frame and trying to push it toward equity-oriented measures and capacity building," and "moving towards a model of resources that promote best practice or transformation."

Participants who held more linear conceptions of knowledge mobilization tended to seek to shift mindsets directly with the hope that this shift would then engender a shift in practices. One group talked about "translating complicated research findings into something that's really powerful and accessible and exciting" so that people could "see the value of these kinds of programs [in increasing diversity in STEM]."

They wanted people to "get the implications of the work so that people can change their practice or the way that they work with kids." They also understood that there is tremendous power in shining a light on their own successes because seeing kids being "super engaged" in academic content could capture the attention of adults in positions to shift educational practices.

Other participants placed a premium on the types of knowledge mobilization that allowed them to create opportunities for their audiences to experience learning in new ways. These participants spotlighted shifts in practices, believing that these shifts would result in mindset shifts. "We think the most direct and easy way for [people to change the way they think about what constitutes high-quality instruction]," explained one participant, "is to give lessons to teachers that are fully mapped out." Another participant discussed distributing a learning protocol, stating that they "hope the protocol promotes a different way of thinking [...] We hope when [people] do this, it promotes [them] to think differently." Rather than simply disseminate their resources, they preferred to allow their audience to take the role of students interacting with resources. "Getting them to engage with the [subject] and to try it in this open way," was considered, by these participants, to be an important step in mobilizing practices. The logic here was that, if audiences engage with new practices as learners, they are more likely to shift their mindsets about these practices and employ them in their own settings. Further, participants hoped that people would gain a sense of agency in using and advocating for new practices if they experienced them first as learners.

To encourage this dual shift in both mindsets and practices, some participants had multi-pronged approaches that involved disseminating practice-oriented materials to some users, and mindset-oriented materials to others. This was particularly true in situations where users such as teachers, program directors, district leaders, professional development providers, teacher educators, and policymakers were operating within wider political and institutional structures that were likely to hinder shifts in practices. In these cases, participants often distributed practice-oriented materials to users and mindset-oriented materials within their users' wider contexts, thereby hoping to create fertile ground for new practices to take hold.

However, for most participants, the answer to the question of how to shift mindsets and practices was not clear-cut. One group, for example, described the importance of considering the "balance between *what is the thing*? and *what is the impact of the thing*? and *how does that affect humans*?" when deciding what kinds of resources to share. Many considered the delicate interplay between mindsets and practices as two crucial aspects of a learning "trajectory" or "journey" that audiences needed to take in order to shift both their mindsets and practices in unison.

Engaging the Right Content at the Right Moment in Mobilizing Knowledge

For most participants, the element of time was viewed as a key feature in whether audiences would be able to engage with their resources effectively. This was related to several factors, such as the availability of social and structural supports for users, other contextual factors vying for the attention of users (such as budget cuts, new policies and frameworks, competing initiatives, etc.), and the individual users' beliefs, values, emotions, and knowledge. The theme of taking their audience on a "learning journey" was common among many participants.

At its most practical level, guiding users on their learning journey required participants to be aware of the social and structural supports available to undergird users' changes to policy and practice. One participant described the importance of "understanding the totality of the circumstances that our learners are coming in with." Another discussed how users "are so different in terms of expectations, rhythms, timelines, perceived utility and the immediacy versus over the course of a year or five years." Participants sometimes seemed daunted by the extraordinary variation within their audiences and their respective social and organizational worlds.

Taking a wider lens, participants also took into account the larger educational and political landscapes of their audiences and their work. They weighed the current political discourse and presently relevant educational topics when considering their opportunities to establish their resources and practices. This was discussed by some participants in terms of people "glomming onto movements or themes or language," as fads in education move through various sectors, or "waiting to see where there's political momentum." One participant described this as "dynamic" influence, asking themselves, "So how can I leverage that resource in this new kind of moment?" To ensure that resources would be available and relevant to users not just upon their release but whenever contextual factors permitted or encouraged their use, one participant discussed "invest[ing] in the long tail of this content to make sure it lasts for a long time. And if it reaches someone three years from now, that's still valuable." Our participants were aware that these temporal factors facilitated or inhibited the implementation of their practices, policies, and eventually shifting of mindsets, and one group even talked about an "organizational learning trajectory" of shifting structures and cultures to enable their audiences to implement their work.

Further, the interplay of mindsets and practices was evident in that the primary

"time" concern of our participants was the individual learning process of users. The most experienced participants discussed the element of time most often in terms of the simultaneous shift of mindsets and practices that they want people to go through. One participant described this learning as "a journey, and not just a flip switch that can be flipped for most people." They also discussed the importance of "guiding [people] in this journey," an endeavor that seemed to them to require a "roadmap" of which content to present to which learner in which order. Each resource was seen as "part of a larger improvement journey that we're trying to walk folks through." Participants explained that guidance was important when asking users to engage in transformational journeys because, "the more complex the thing you're trying to spread, the more [people are likely to think] *I don't want to do this.*" Concerns about the utility of particular ordering of resources were more salient in settings where participants had less engagement with their audiences, such as through listservs and websites versus more deeply engaging interactions such as workshops.

While participants had a vision of the journey they wanted to take their audiences on, one group also made it clear that this path was not uniform among their audience: "I don't have the expectation that the adults that we work with are going to be on singular journeys that all arrive at the same destination, and someone is just further than the other person." "They are on whatever their path is," explained another participant, "and that impacts the understanding they have of the content that we produce." Thus, these participants indicated that this process is multidimensional.

Affective Component of Knowledge Mobilization

Several participants indicated that the emotional aspect of their engagement with their audiences, such as "compassion or excitement, or eagerness or boredom," was a pivotal feature of their work. They were cognizant that shifting mindsets and practices hinged on their ability to strategically evoke emotions or effectively engage with the emotions that their audiences would experience when establishing new practices in their own settings. They understood that frustration and anxiety could result from confronting their audience with progressive ideas and practices they could not yet implement. In some cases, this had to do with the user's learning journey, as in the case of the professional development participant who underscored the risk of their audience feeling attacked if resources were not delivered in a thoughtful order. "If you ... play these videos on day one," they explained, "everyone in the room will tell you that ...you're mean, like you're making fun of them. ... If you play the video on day three, the whole room will laugh with you. And they'll make fun of themselves over the way they used to be on day one." Other participants described how teachers felt anxious about their institute's teaching approach because they did not include an answer key for classroom activities, and the answers might not be evident to the teachers. Yet they believed this temporary anxiety was a useful experience for their users within their experience of rethinking their pedagogy. Participants also believed that if their engagement elicited positive emotions, such as feeling successful or excited, their audience was more receptive to their messages. For instance, one participant said: "We know that most people actually have [content area] anxiety.... and have had bad experiences with [a content area]. And we also know that [a content area] can be totally different to what people think it is and how people have experienced it. And when it is different, they are changed. Most people find it a transformational experience to experience [content] differently and be successful." This participant believed that they needed to change their audience's relationship with a content area before pedagogical transformation could occur. Other participants tried actively to elicit positive emotions through "more concrete, more emotional, more human storytelling." They explained that shifting practices involved more than saying, "here's the tool," but instead showing users "here's what it looks like in action, or here's a story of a school that used it." Similarly, another participant highlighted that they tried to write resources using language that makes people feel validated, heard, and welcomed.

To further facilitate positive emotions such as excitement, confidence, and inspiration, the participants with the most experience in successfully guiding people on a mindset/practice journey, considered the ways different areas of content relate and overlap. For example, a user might not be comfortable engaging with a particular piece of content until they had grown accustomed to a related piece. Along these lines, a participant explained that many people begin engaging with their organization's most widely accepted resources first. Once comfortable with the organization, they feel more open to new ideas that challenge their long-held beliefs about education and might "leave with an idea about equity in school design" that they previously hadn't been open to. This is not a journey that can be achieved by simply providing resources to users. Instead, this involves careful orchestration, guided interaction, and extraordinary knowledge of the audience and their emotional engagement.

The Central Role of Relationships in Knowledge Mobilization

Prioritizing shifting mindsets and practices rather than disseminating resources, attending to the learning journeys of users, and effectively evoking and engaging

emotions all require ongoing relationships between knowledge brokers and their audiences. Knowledge brokers in this study set out to build deep and trusting relationships with their audiences, considering their needs, wants and contextual realities to create meaningful and useful resources. One participant explicitly highlighted that "trust, or the relational aspect," was vital in their work.

This being said, the characteristics of the relationships between the knowledge brokers and their audiences varied. One participant characterized their audience as "co-creators" and "collaborators" with whom they were engaged in a "community of practice." Similarly, another participant underscored that they viewed their audience as an "equal group of potential leaders or actual leaders that are convening together." However, this participant did not go so far as to co-create resources with these leaders. Again, another group explained that they "do a lot of listening" to the educators they were designing resources for, highlighting that "pretty much all of our initiatives come from going out and talking to teachers and administrators."

The range of ways participants engaged in relational work with their audiences depended heavily on the level of contact they could sustain with them. In some cases, participants partnered closely with some users, and engaged more distantly on a grander scale with others. However, although participants structured their relationships with their audiences differently, they shared a commitment to incorporating their audience's needs and wants in their work and considering their context as they mobilized knowledge.

Discussion and Conclusion

By refocusing the lens of the research/practice gap from use and impact to knowledge mobilization, we have gained new insights into the non-linear, highly relational aspects of this process. In closely examining the experiences of five organizations engaging with educators and policymakers to improve educational experiences and outcomes for traditionally underserved student groups, we expand the framework of knowledge mobilization and show how this work is about far more than dissemination and implementation of resources. Our work, building on existing literature, highlights the roles of trust and affect in mobilizing values, beliefs, and practices.

While research on knowledge mobilization has described the process as multidirectional, collaborative, and co-productive (Phipps et al., 2016; Ward, 2017), this study expands upon the knowledge mobilization framework by highlighting the importance of transmitting values, beliefs, and practices through emotion-evoking experiences and considering audiences' learning journeys and shifting needs. Our findings support existing scholarship that has shown that knowledge mobilization is an iterative, multidirectional, and sometimes collaborative and co-productive process with a continued shaping and re-shaping of knowledge between parties (Ward, 2017) with the aim to improve the education system (Cooper, 2014). However, we also demonstrate how knowledge brokers deliberately evoked emotions among their audiences, even as they differed in their experience and strategies. They guided learners through anxieties and constraining factors on their journeys to change practices and shift mindsets. These processes were promoted through relationships, even deep interactions, between knowledge brokers and educators, administrators, and policymakers in ways that previous research has shown to matter (e.g., Cooper et al., 2018; Phipps et al., 2016; Ward, 2017). Therefore, we would argue that the process of bolstering policy and practice with research and evidence-based resources should be framed as a process of continued learning from and between partners through engaging with each other and shared experiences - all in the service of improving practices, policies, and systems. This is true not only in close partnerships, such as RPPs, but across all levels of knowledge mobilization.

Indeed, the trusting relationships between our participants and their audiences helped bridge the contexts of knowledge production and implementation (Cooper et al., 2018; Levin, 2011). Our findings extend previous work examining the experiences of practitioners and their relationships with knowledge brokers that support collective sense-making to aid their learning (Farrell et al., 2019; Penuel et al., 2017). Through deeply collaborative relationships such as RPPs, researchers are more able to attend to the individual and organizational aspects that support learning. However, most participants in our study did not engage in an RPP model, though some had elements of partnerships in some aspects of their work. Most of our participants were employing the types of relational moves that are hallmarks of RPPs (e.g., attuning to people's needs, learning journeys, and contextual factors) in much broader settings. They viewed workshops, for example, as an opportunity not only to share resources, but also to learn from users, to understand their perspectives and experiences, and to incorporate that learning into their knowledge mobilization efforts. Similarly, online spaces that facilitated unidirectional communication (e.g., listservs) were less preferred by brokers than spaces that permitted deeper conversations, such as discussion boards and online and offline collaborative spaces. Understanding the experiences of their audiences was crucial for knowledge brokers in their efforts to engage in the relational work outlined in our findings, even in large-scale online

spaces.

Additionally, as this study analyzes the work of knowledge brokers, it provides insights into how knowledge "enters into the ongoing stream of decision-making" (Coburn et al., 2020, p. 42). The participating knowledge brokers provided multiple considerations on how to bridge the contexts in which knowledge is produced and the ones in which knowledge is used (Levin, 2011), frequently blurring the two. While their approaches fit into the broad types of strategies to bridge these contexts (i.e., publications, events, and networks to support knowledge mobilization)(Cooper et al., 2018), their experience also adds nuance and complexity to the processes and strategies of knowledge mobilization. For instance, their experiences underscore the importance of audiences' emotional experiences when mobilizing knowledge. To evoke positive emotions, knowledge brokers' experiences emphasized that trusting relationships with audiences are essential. As such, this study demonstrated how knowledge can be used to start conversations rather than end them (Kirkland, 2019). By deeply engaging with their audiences when establishing their work, the knowledge brokers had the opportunity to discuss the relevance of their resources and learn about the users' complex social, cultural, and political contexts (Jackson, 2022; Kirkland, 2019). These encounters, in turn, informed their research, resource creation, and how they shared their work. Therefore, the participants acknowledged the practitioners' expertise as "valuable forms of knowledge" (Jackson, 2022, p. 213).

Implications for Research and Practice

This study pushes our understanding of evidence-informed education through a knowledge mobilization framing, providing several implications for research and practice. Although prior research has examined the experiences of practitioners in this process (e.g., Coburn et al., 2020; Farrell et al., 2019; Penuel et al., 2017), this study stopped short of doing so. Research that combines the relational perspectives of both practitioners and researchers has emerged from the RPP sector (e.g., Weddle et al., 2021), providing important insights into the learning experiences from both vantage points. However, the current study highlights several relational aspects of knowledge mobilization from knowledge brokers' perspectives, and it would be beneficial to understand how practitioners and policymakers perceive and consider these same experiences and relational aspects in their own knowledge mobilization processes, particularly those with lower levels of contact with brokers.

The relational aspect of knowledge mobilization did not limit participants in this study to acting only locally. They also leveraged online spaces – contexts in which knowledge mobilization increasingly tends to occur. Digital social networking sites such as Twitter, LinkedIn, Instagram, and TikTok join more traditional digital platforms such as blogs and listservs as spaces for mobilizing knowledge. The multi-directional nature of communication on these platforms can support the relational work of knowledge mobilization. Indeed, they proved useful in facilitating the sharing of relevant just-in-time resources for education during the Covid-19 pandemic (Reimers & Schleicher, 2020). However, the sheer quantity of information can overwhelm both brokers and users, thereby impeding the mobilization of relevant resources (Rehm et al., 2020). The challenge for knowledge mobilization on social media, then, is to retain the relational aspects that engender success. Knowledge brokers who understand this challenge as well as the connection between mindset shifts and changes in practice, the importance of emotional experiences, and the timing of resources for learners in their own contexts, could leverage this space to engage audiences in ways that extend beyond resource dissemination. This way, they may leverage the totality of the social continuum for their work and, thus, overcome the artificial bifurcation between online and offline spaces (Daly et al., 2019).

Further, the field would benefit from future research on interactions in informal networks, including social media, where knowledge mobilization increasingly tends to occur. There is a need to examine the relational aspects of knowledge mobilization from multiple perspectives in these informal spaces. When individuals engage with one another outside formal systems and spaces, such as on social media, it can be difficult to gain a full picture of the levers for knowledge mobilization (Rehm et al., 2021). However, informal networks can provide an opportunity for professional learning and foster the exchange of knowledge (e.g., Daly et al., 2019). This perspective is crucial for sustaining effective knowledge mobilization in the education sector on the often impersonal scale of social media use. As knowledge brokers, practitioners, and policymakers increasingly turn to online spaces, we must resist the urge to see this work as simply a problem of dissemination and consumption. Such a model downplays the important knowledge policymakers and practitioners bring to the interaction and is insufficient for the highly relational, emotional learning work involved in shifting mindsets and practices to improve education.

Knowledge brokers in contemporary spaces must be continually attuned to the needs, contexts, affective states, and learning trajectories of their audiences in order to effectively shift mindsets and practices. Much hinges on the trust brokers build with their audiences. These findings highlight the complexity of knowledge mobilization, and demonstrate the tremendous skill set necessary for knowledge brokers as they mobilize their resources for practice and policy.

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