Tools of the Trade

Using Toolkits to Mobilize Policy Ideas Around Teacher Quality

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Introduction

There is renewed interest today in increasing the use of research knowledge and data, which is now frequently termed evidence-based policy and practice (Nutley, Walter, & Davies, 2007; Tseng, 2012). Though it is not without its critics (see Holmes, Murray, Perron, & Rail, 2006; Trinder & Reynolds, 2000) and the Trump Administration notwithstanding, evidence-based policy and practice continues to forge ahead in many policy arenas both within and outside the United States of America (U.S.). Funding trends corroborate this point. In 2009-2010, just over $10 billion in discretionary funding to the Institute of Education Sciences (IES) from the *American Reinvestment and Recovery Act* (ARRA) was pumped into the education economy to develop statewide data systems, and to support research, development, and dissemination (Mason, 2013). Furthermore, many of the funds from ARRA were authorized for evaluation, research, and data system development in the *Race to the Top* competition (U.S. Department of Education, 2009).

Increased investment in efforts to use social science research in policymaking does not lead to *de facto* solutions of social problems. As Cohen and Weiss (1977) note, improved research on social policy often produces outcomes with more nuance and complexity, which complicates decisions about which policies to enact as solutions to social problems. The production of more social science research presents an opportunity. Organizations and individuals can work to shape the research which

moves from production to policy and/or practice. Intermediaries operating at the intersections of governance structures sift and winnow the research moved to the policy sphere. This is significant, for if increased production of social science research knowledge does not necessarily lead to consensus around the solutions to social problems, then those tasked with brokering social science research to policymakers have a powerful role in mobilizing the knowledge that influences policy (Poulantzas, 1975; Wallerstein, 2001; Suleiman, 2013).

In this study, using the critical conceptualization of Campbell and Peterson's "knowledge regimes" (2015), I explore the impact of a policy toolkit produced by a federally funded intermediary organization (IO) on the strategies advanced in states' plans to ensure equitable access to excellent educators. I ask the following research question: how did the use of a policy toolkit enable or constrain policy choices in those states that used it as a resource? As a federally funded intermediary organization, I argue that this particular IO communicated policy-relevant ideas grounded in frames of human capital and comprehensive talent management to state education agency personnel through a toolkit.

What follows is a brief review of the uses of research in policymaking, a review of the literature on intermediary organizations as knowledge brokers, and a discussion of the use of toolkits for knowledge mobilization.

Uses of Research in Policy Making

In the field of knowledge translation for policymaking, there is a lot of literature discussing whether and how research influences policymaking (Biddle & Anderson, 1991; Weiss & Bucuvalas, 1980). It is often assumed that research will be used in direct and specific ways (Beyer, 1997; Estabrooks, 1999b); that is, given a piece of policy relevant research, it is assumed that policymakers will learn of this research on their own and that the research itself will have a direct impact on policies proposed or implemented. However, most social science research, as Carol Weiss notes, is used conceptually. With conceptual use research seeps into the policy sphere and changes how issues are framed, altering what constitutes viable policy options (Weiss, 1999). Therefore, conceptual use, while important to framing viable policy options, does not lead to direct and specific application of policy-relevant research to policy. The question then becomes how to mobilize knowledge for policymaking so that it results in more instrumenta—direct and specific—application. I turn now to the literature on knowledge mobilization (KMb) and brokering.

Knowledge Mobilization and Knowledge Brokers

Knowledge mobilization is increasingly used as the term in education policy and practice studies to refer to the process of moving research into the policy sphere (see Cooper & Shewchuk, 2015; Scott, Jabbar, LaLonde, Debray, & Lubienski, 2015). As a subset of the larger field, knowledge brokers manage all the activity that connects policymakers with researchers with the aim of promoting the use of research-based evidence in decision-making (Lomas, 2007). Knowledge brokers provide the links between research producers and research users (Ward, House, & Hamer, 2009). A central aim of knowledge brokers is to build bridges between research, policy, and practice to improve systems and solve intransigent social problems (Cooper & Shewchuk, 2015). In the literature on bridging the research-to-practice gap, brokers are defined both by their roles—what brokers do—and by their relationship to groups within a given network (Neal, Neal, Kornbluh, Mills, & Lawlor, 2015). When classified by roles, knowledge brokers operate as: (1) information managers; (2) linking agents; (3) capacity builders; (4) facilitators; and (5) evaluators (e.g. Glegg & Hoens, 2016; Turnhout, Stuiver, Klostermann, Harms, & Leeuwis, 2013; Ward et al., 2009).

When defined by relationships and positionality within a given network, the brokerage typology introduced by Gould and Fernandez (1989) remains a relevant orienting frame to knowledge brokering today (Neal, Neal, Kornbluh, Mills, & Lawlor, 2015). Gould and Fernandez list the five types of brokers as liaison, itinerant or consultant coordinator, gatekeeper, and representative (1989). In this brokerage analysis and in Figure 1 below, B can be understood to represent the broker operat-

Figure 1
Brokerage Typology
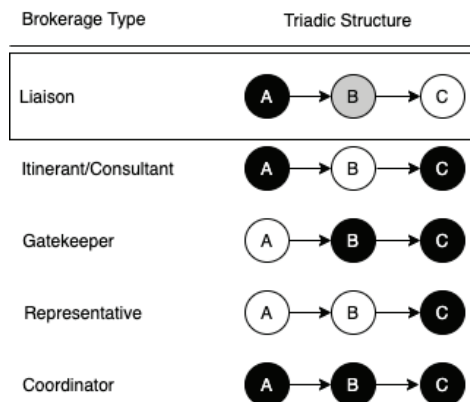
Note. Gould and Fernandez's (1989) types of brokerage and Neil, Adapted from Neal et. al. (2015). Different shades represent different groups or communities within a knowledge-sharing network.

ing between two other individuals or parties (A and C, respectively). In this analysis, the roles are: (1) Coordinator, where all three (A, B, and C) belong to the same group; (2) Gatekeeper, where A belongs to one group while B and C belong to another group; (3) Representative, where A and B belong to one group, and C belongs to another; (4) Itinerant or Consultant, where A and C belong to one group, and B belongs to another; and (5) Liaison, where A, B and C each belong to a different group.

The passive dissemination of knowledge has proven to be largely ineffective particularly as it relates to translating research to practice (e.g., Lave & Wenger, 1991). However, when research is mediated by knowledge brokers and discussed with end users, research uptake by practitioners is more significant (Amsallem et al., 2007). Scholars have documented the importance of translating research materials to encourage the use of research in policy and practice (see Barnes, Goertz, and Massell, 2014). As a consequence, knowledge brokers are tasked with making research evidence accessible, often through synthesis, translation, and dissemination of research results (Cooper & Shewchuk, 2015; Feldman et al., 2001).

Knowledge brokers also support decision makers in managing information overload (Feldman et. al., 2001). The knowledge brokers filter out or screen in what they themselves deem to be policy relevant knowledge or sound research evidence. As such, knowledge dissemination can mask policy advocacy (Knott & Wildavsky, 1980). Thus, in filtering information, knowledge brokers may position themselves as powerful policy advocates.

By distilling esoteric conclusions within the research base into actionable guides, protocols, and templates, research that may have previously served to enlighten policymakers or frame thinking around a policy idea can be used instrumentally to recommend and support the enactment of particular policy ideas. The use of models, protocols and guides imbued with research-based practices serve as mechanisms through which to shift research use from the conceptual to instrumental (Beyer, 1997; Estabrooks, 1999b). In their study of comprehensive school reform designs, Rowan, Miller, and Camburn (2009) found that research tools providing specificity and scaffolding were more likely to be used and resulted in less variation by users. Consequently, these research tools supported the instrumental use of research. With their strategic development of tools to support knowledge translation for policy and practice, intermediary organizations (IOs) are increasingly playing a role as knowledge brokers (Tseng, 2012; Cooper & Shewchuk, 2015; Dobbins et al., 2009).

Intermediary Organizations

Since intermediary organizations operate between two groups they are liaison brokers. I turn now to the literature on intermediary organizations, particularly in the context of education practice and policymaking. An intermediary organization functions as a liaison broker (Gould & Fernandez, 1989) between researchers and practitioners, researchers and policymakers, and practitioners and policymakers. Intermediary organizations are situated precisely where knowledge brokering occurs and are well-suited to carry out the functions of a knowledge broker. Intermediaries translate and package research for legislators, agency staff, and service providers, and they broker relationships between researchers and policymakers (Tseng, 2012). IOs may include foundations, policy groups, think tanks, and private technical assistance providers. Importantly, IOs are not *a priori* neutral, objective parties offering recommendations and providing syntheses of research. They bring their own agendas and priorities (Henig, 2008).

In education policy, IOs increasingly operate as knowledge brokers between the research and policy communities (Cooper & Shewchuk, 2015; Dobbins et al., 2009; Tseng, 2012) and are facilitating specific policy agendas (e.g., Lubienski, Scott & DeBray, 2011; Lubienski, Brewer, & LaLonde, 2016; Ness & Gandara, 2014; Scott & Jabbar, 2014). To date, research has focused almost exclusively on IOs funded by philanthropic and ideological foundations. Specific education reforms promoted by IOs in education policymaking include charter schools (Au & Ferrare, 2014), school vouchers, and choice (Goldie, Linick, Jabbar, & Lubienski, 2014; Lubienski, Weitzel, & Lubienski, 2009), and parent trigger laws (Ness & Gandara, 2014). What has not been explored, however, is the way in which the federal government employs IOs to influence which policy ideas gain prominence at the state level in education policy.

Because state education agencies are increasingly relying on intermediary organizations such as the Regional Educational Laboratories (RELs) to support their policy work, it is important to understand the mechanisms used to broker knowledge and influence state education agencies' policy development. One mechanism is the toolkit.

Toolkits in the Literature

Toolkits are used in a number of fields and by a variety of entities. Because toolkits are perceived to be communicating information and knowledge to end users, they have the potential to be effective knowledge translation tools. As knowledge translation tools, toolkits are used to educate and/or facilitate behavior change, and they are proving to

be moderately effective at doing so (Yamada et al., 2015). While they may be effective at educating and facilitating behavior change, toolkits also frame problems in particular ways and rarely mention the specific evidence-base(s) from which they draw (Barac et al., 2015).

The use of toolkits in the field of education and education policy and advocacy is growing. For instance, the U.S. Department of Education now promotes the use of an English Learner Toolkit for state education agencies to use as they work to fulfill legal obligations in supporting English Learners under the *Every Student Succeeds Act* (ESSA) legislation. There is an archived *Tool Kit on Teaching and Assessing Students with Disabilities* (U.S. Department of Education, 2004) and a recently published toolkit on *Improving Outcomes for Youth with Disabilities in Juvenile Corrections* (U.S. Department of Education, 2016).

In addition, so-called "turnkey toolkits," which include summaries of relevant theoretical frameworks, research questions, findings, and data collection templates are being used to encourage research-based innovations by faculty (Hamilton, 2006). In these "turnkey toolkits," the consumer does not determine which operating frameworks are relevant to the work. Instead, those who develop the toolkit—whether they are aware of the contexts in which the toolkit will be used or not—decide which frameworks are relevant (Hamilton, 2006).

In the field of education and education policy, few researchers have explored the ways in which these toolkits act as vehicles for policy advocacy or the ways in which they may serve to constrain policy options. Related research by Anderson and Donchik (2014) on the American Legislative Exchange Council's (ALEC) use of prefabricated model legislation to influence and advise policymakers is one. Trujillo (2014) provides another related account of the use of templates and tools in school improvement.

The role of intermediary organizations in producing these toolkits and the ways in which these toolkits have been used to shape policy choices within state education agencies is worthy of exploration and can add to the literature on knowledge mobilization and the role of intermediary organizations in education reform.

Theoretical Framework

It has become clear that ideas matter in policymaking (Blyth, 2011; Hall, 1993; Schmidt, 2011). And yet, when it comes to policymaking all ideas are not equal. Ideas enable specific solutions to policy problems, and they constrain the solutions policymakers consider; in short, ideas are vehicles that allow actors to construct frames that legitimize policy proposals (Campbell, 1998).

Borrowing from the theoretical literature on policymaking, the concept of "knowledge regimes" advanced by Campbell and Petersen (2015) guides this study. I take knowledge regimes to be the sense-making apparatus that assists with knowledge mobilization. Thus, knowledge regimes are the machinery within organizations and institutions that generate data, research, policy recommendations, and ideas that influence public opinion and policymaking.

While the ideational perspective to policymaking provides broad theoretical grounding for this study, the theoretical concept of knowledge regimes remains a black box and catch-all for surfacing the specific mechanisms operating to mobilize knowledge for policy (see Figure 2).

What tools and mechanisms do knowledge brokers use to mobilize knowledge for policymaking? Which tools and which mechanisms are effective at mobilizing knowledge to influence policy?

Figure 3 (see next page) is an attempt to peer into the black box of one knowledge regime. In this case, IOs lie at the heart, serving as liaison brokers between two different groups: federal and state education agencies and researchers and policymakers.

Case Selection

Using the *Excellent Educators for All* initiative as a case, this study examines the influence of intermediaries operating between state and federal education agencies. The *Excellent Educators for All* initiative occurred just prior to the reauthorization of *Elementary and Secondary Education Act as the Every Student Succeeds Act* (ESSA). ESSA has been lauded as a piece of legislation that returns local authority over education to states and rolls back the influence of the federal government on education decisions. Thus, this initiative presents a case through which to examine the role of the federal department of education amidst criticism of federal encroachment on education policy historically considered the purview of the states.

Figure 2
*The Black Box of Knowledge Regimes*
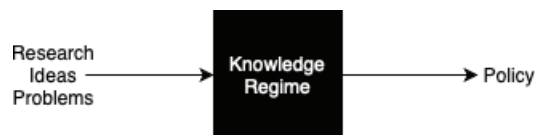
Note. This figure demonstrates the black box or catch-all of knowledge regime as advanced by Campbell and Petersen (2015). Somewhere in the black box, ideas, research, and problems are mobilized and influence policy.

The IO: Center on Great Teachers and Leaders

The Center on Great Teachers and Leaders (GTL Center) operates via a U.S Department of Education grant as one of seven content centers funded through the Office of School Support and Rural Programs. The Center on Great Teachers and Leaders was created to provide technical assistance and identify, synthesize, and disseminate research-based and emerging promising practices.

One of the named focal areas of the GTL Center is Human Capital Management Systems, alternatively called talent management (Minnici, 2013). Comprehensive approaches to talent management draw from business models related to talent management and human capital in the knowledge economy. The GTL Center documents that business

Figure 2
*Inside the Black Box of the Equitable Access
to Excellent Educators Knowledge Regime*
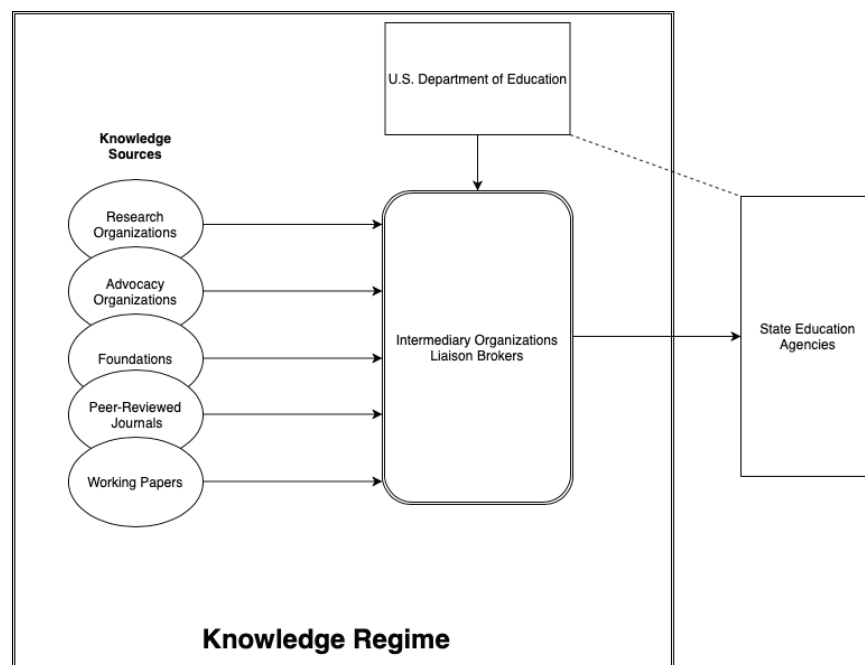
Note. This figure illustrates the flow of information, as determined through bibliometric analysis, from knowledge sources to IOs and then to state education agencies. It also illustrates the role of the U.S. Department of Education inside the knowledge regime as a sponsor of the IOs with an indirect influence upon the state education agencies.

consulting group McKinsey and Company, IBM Business Value, and the Human Capital Institute perceive the education sector as a laggard in the development of comprehensive systems of talent management (Minnici, 2013).

The American Institutes for Research (AIR) is the administrative partner of the GTL Center. The Chief Council of State School Officers (CCSSO) and Public Impact are additional partners in the GTL Center. Together, these three partners hold beliefs and reform priorities that align with federal U.S. Department of Education investments in evidence-based and innovative educational practices, longitudinal data systems, effectiveness measures based on growth data through standardized tests, and education reforms that view modifications to teaching and leading as key levers through which to advance education reform.

Data Sources

The Equitable Access Toolkit

The Equitable Access Toolkit (EA Toolkit) was developed by the GTL Center to support state education agency (SEA) development of equitable access plans (EA Plans). Tools include a stakeholder engagement guide, a data review tool that includes sample data sets and metrics, a root cause analysis workbook, and a moving toward equity tool. Also included are sample meeting agendas, a PowerPoint template, engaging stakeholders in root-cause analysis, a "Taking the Temperature" activity, a sample state plan to ensure equitable access to excellent educators, and a "build-your-own" template for state education agencies to use in developing their equitable access plans.

The policy ideas within the Equitable Access Toolkit emphasize a comprehensive approach to talent management. In this approach, state education agencies work to systematize all facets of human capital and talent management, including attracting, preparing, hiring, recruiting, retaining, and developing educators.

Equitable Access Plans

The second data source included fifty-two plans for ensuring equitable access to excellent educators, including all fifty state plans and plans for the District of Columbia and Puerto Rico.

Data Collection and Procedures

To conduct this analysis, equitable access plans were reviewed with attention to whether the Equitable Access Toolkit or any of the resources mentioned therein were referenced in the plans.

Not every state credited the resources they used so initial data collection was likely an underrepresentation of the actual number of states that used tools, toolkits, and/templates from the GTL Center. To address this, another close reading of the plans was performed. A list of unique discourse markers written into the text of the equitable access plans was compiled. These discourse markers contained identical language to one particular resource within the EA Toolkit: *Resource 9: Sample State Plan to Ensure Equitable Access to Excellent Educators* (Sample Plan). Consequently, the Sample Plan within the EA toolkit provided a concrete way to examine the phenomenon of the toolkit's influence on policy ideas within the plans.

Discourse Markers

The first discourse marker was the phrase "as augmented with" when plans referred to the U.S. Department of Education's official guidance document added after the launch of the Excellent Educators for All Initiative.

A second discourse marker within the EA toolkit's Sample Plan was the definition of an "excellent teacher." In the Sample Plan an excellent teacher was defined as follows:

> An excellent teacher is fully prepared to teach in his or her assigned content area, is able to demonstrate strong instructional practices and significant contributions to growth in student learning (on tests and in terms of social-emotional indicators), and consistently demonstrates professionalism and a dedication to the profession both within and outside of the classroom. (Center on Great Teachers and Leaders, 2015, p. 6)

A third discourse marker used to signal the likelihood that SEA personnel used the Sample Plan within the EA Toolkit was the theory of action contained in the Sample Plan. The theory of action reads as follows:

> If a comprehensive approach to talent management—in particular for low-income, high-minority, and high-need schools and districts—is implemented carefully and its implementation is monitored and modified when warranted over time, then State A school districts will be better able to recruit, retain, and develop excellent educators such that all students have equitable access to excellent teaching and leaders to help them achieve their highest potential in school and beyond. (Center on Great Teachers and Leaders, 2015, p. 14)

Aside from serving as a unique discourse marker, the theory of action also promotes a particular policy idea; namely, that a comprehensive approach to talent management will result in a more equitable distribution of excellent educators.

The final marker employed to ascertain whether SEA personnel used the EA toolkit was the inclusion of a "Fishbone Diagram" for the root cause analysis in a state's plan. The EA Toolkit promoted the use of this "Fishbone Diagram" resource when SEA personnel conducted root cause analyses with stakeholders.

Methods

The mode of inquiry used for this study is document analysis. Purposeful sampling strategy follows Patton's (2002) definition of criterion sampling. I elected to include as cases those EA plans containing three or more discourse markers (high-use) and EA plans with no discourse markers (low-use).

I completed three rounds of coding for the twenty-four state plans, noting the specific strategies named within the plans. Per the coding manual by Saldana (2009), I began with descriptive and in vivo codes of the strategies named in the Sample Plan and of the strategies named in states' plans. The second round of coding incorporated structural codes. I then mapped state plans' strategies to the strategies listed in the Sample Plan. Initial codes were developed into seventeen categories of strategies named in the findings section. Strategies not listed in the Sample Plan but listed in states' plans were categorized as "state-identified strategies." Strategies within the Sample Plan were categorized as "Sample Plan Strategies." Once coding was completed, I tabulated state-identified strategies and Sample Plan Strategies for the high-use states and the low-use states.

Findings

The strategies listed within the twenty-four plans fall into seventeen categories. In reviewing the strategies named within each state equity plan, the majority of these seventeen categories fall underneath the concept of human capital management or comprehensive talent management.

Table 1 provides a list of the categories with the number of Sample Plan Strategies and State-Identified Strategies listed in each category.

In every category where the Sample Plan listed strategies, high-use states adopted more of the Sample Plan strategies than low-use states for inclusion in the state's Equitable Access Plan. Table 2 below portrays the sample plan strategy use by high-use and low-use states.

For states that used the Equitable Access Toolkit and its accompany-

Table 1
**Number of Strategies Named within Each Category
by the Sample Plan & State Plans**

Category	Sample Plan Strategies	State Identified Strategies
Hiring Practices	3	2
Recruitment	3	8
Compensation Practices	4	2
Career Advancement Opportunities	1	1
School & State Funding	6	6
Educator Effectiveness & Evaluation	2	2
Induction & Mentoring	3	3
Professional Development & Ongoing Learning	0	11
Educator and Leader Preparation	9	7
Licensing & Certification	3	5
Data Systems & Accountability	4	6
Training & Technical Assistance	4	6
Distance & Virtual Learning	0	2
School Climate & Working Conditions	0	5
Further Research	0	8
Family, Community & Stakeholder Engagement	0	3
Streamlined Policies	0	1

Table 2
Sample Plan Strategy Use by High-Use and Low-Use States

Sample Plan Strategies	High-Use	Low-Use
Hiring Practices	0.14	0.02
Recruitment	0.33	0.14
Compensation Practices	0.11	0.06
Educator career advancement opportunities	0.29	0.24
School & State Funding	0.14	0.04
Educator Effectiveness & Evaluation	0.21	0.18
Induction & Mentoring	0.14	0.06
Educator & Leader Preparation	0.11	0.10
Licensing & Certification	0.08	0.02
Data & Accountability	0.14	0.06
Training & Technical Assistance	0.04	0

A chi squared test for significance reveals that high-use states used more Sample Plan strategies than low-use states at a level of $p<.05$ significance.

ing resources, the strategies listed within state plans followed markedly from the strategies promoted in the EA toolkit and Sample Plan.

High-use states also listed strategies different from those included in the Sample Plan. However, low-use states identified their own strategies to an equal extent. See Table 3 for a breakdown of state-identified strategies for high-use and low-use states.

Low-use states identified more of their own strategies in the umbrella categories of talent development and human capital management (i.e. compensation, recruitment, educator and leadership preparation, licensing and certification) than high-use states. The majority of the state-identified strategies mentioned by high-use states occurred outside the larger categories of talent development or human capital management. In other words, while high-use states listed different strategies in other categories (such as working conditions and research), the use of the Sample Plan with its prepackaged strategies in the categories under comprehensive talent management made it less likely that states would identify their own strategies in those same categories.

Turnkey Strategies

The strategies within the Sample Plan appear to drive many of the high-use states' strategies to achieve equitable access to excellent edu-

Table 3
State-Identified Strategy Use by High-Use and Low-Use States

State-Identified Strategies	High-Use	Low-Use
Hiring Practices	0.14	0.06
Recruitment	0.05	0.10
Compensation Practices	0	0.06
Career Advancement opportunities	0	0.18
Educator Effectiveness & Evaluation	0.07	0.06
Induction & Mentoring	0	0.11
Professional Development & Learning	0.11	0.07
Educator & Leader Preparation	0.02	0.08
Licensing & Certification	0.06	0.07
Data & Accountability	0.07	0.09
Further Research	0.15	0.07
School Climate & Working Conditions	0.13	0.07
School & State Funding	0.14	0.05
Training & Technical Assistance	0.14	0.12
Distance & Virtual Learning	0.17	0.12
Stakeholder & Parent Engagement	0.17	0.06
Streamline Policies	0.17	0.0

cators. I now turn to Nevada's state plan to illustrate this point. One of the Sample Plan's strategies under the category of hiring practices is to negotiate changes in collective bargaining agreements (Center on Great Teachers and Leaders, 2015). Nevada's plan also includes as a strategy changes to collective bargaining agreements. In this case, Nevada's strategies included rolling back collective bargaining agreements and district policies related to hiring in underperforming schools so that "principals can hire teachers who want to work in the schools and have the skills, beliefs, and commitment necessary to succeed in underperforming school" (Nevada Department of Education, 2015, p. 34). Additionally, a strategy within the compensation practices category of the Sample Plan calls for implementing a new teacher compensation system based in part on teacher performance (Center on Great Teachers and Leaders, 2015). Similarly, Nevada included a strategy around performance pay to attract and retain effective principals and teachers (Nevada Department of Education, 2015).

Wisconsin, another high-use state relied on the Sample Plan strategies in the categories of licensing and certification and educator and leader preparation. For instance, the Sample Plan lists strategies such as "cultivating reciprocity agreements and neighboring-state relationships" and "establishing or recruiting alternative pathways/programs to supply teachers to the rural areas of the state (e.g., a 'grow your own' approach), and developing targeted residency programs—among other things" in the category of licensing and certification (Center on Great Teachers and Leaders, 2015, pp.24-25). Correspondingly, Wisconsin lists as some of its strategies: "explore licensing reciprocity agreements with neighboring states," and "explore […] an option to create […] DPI-approved alternative licensure programs to [allow districts to] grow their own teachers to address shortage areas"—the same strategies enumerated in the Sample Plan (Center on Great Teachers and Leaders, 2015; Wisconsin Department of Public Instruction, 2015, p. 34).

In the case of Wisconsin and the other high-use states, the strategies proposed in the Sample Plan were used as turnkey strategies for state education agencies to adopt or recommend in their equitable access plans.

Warrants for Existing Strategies

Not all of the strategies proposed by states in their Equitable Access Plans were new; in fact, many strategies continued existing initiatives to improve teacher quality. These strategies include many of the policy levers Sykes and Dibner (2009) mention have been used in the past to address teacher quality such as: (a) recruitment initiatives

with scholarships; (b) expansion of alternate pathways; (c) preparation program accountability; (d) differential salaries for teachers working in high need schools and subjects; (e) professional development; and (f) induction support, to name a few. Yet, many of these ideas such as expanding alternative pathways, "grow-your-own" programs, targeted teacher residency models, and preparation program accountability, loan forgiveness, differential salaries, and mentoring and induction support are also included in the Sample Plan as strategies (Center on Great Teachers and Leaders, 2015).

The policy ideas promoted by the GTL Center within the EA toolkit and its accompanying resources were not designed out of the blue by the administrative partners (i.e. American Institutes for Research, the Chief Council of State School Officers, and Public Impact) and staff of the GTL Center. Policy advocacy organizations and governments alike have promoted policy ideas such as performance pay and connecting education preparation program approval to graduates' outcomes. However, the concept of a comprehensive approach to talent management helps states to rhetorically justify some of these strategies that might be otherwise out of place. As a consequence, the umbrella term "comprehensive approach to talent management" enabled states to both justify what they were already doing and to continue engaging in existing and new efforts to expand alternative certification programs (Odden, 2011; Center on Great Teachers and Leaders, 2015). It also helps that the Sample Plan includes alternative pathways to certification as a viable tool to support recruitment as part of the comprehensive approach to talent management.

For example, Alabama couched the expansion of alternative certification routes as a recruitment effort aligned with comprehensive talent management (Alabama State Department of Education, 2015). To do so, one of the strategies advocated within the plan was to remove barriers and create new routes for the best and the brightest to enter the teaching profession (Alabama State Department of Education, 2015, p. 25). By linking the expansion of alternative certification programs as one element of an effort to improve recruitment in line with a comprehensive approach to talent management, the sample plan enabled Alabama (and others) to continue existing efforts and engage in new efforts to expand alternative certification programs.

State Identified Strategies outside of the Sample Plan

Recruitment is one area where low-use states listed more state-identified strategies than high-use states. While recruitment is a category under comprehensive talent management, the strategies named within

the Sample Plan include recruiting excellent school leaders, hosting recruitment events through local educator preparation programs for hard-to-staff schools, and offering recruitment incentives like scholarships, loan forgiveness and signing bonuses. No strategies named within the Sample Plan include investing in efforts to uplift the teaching profession. Notably, only low-use states listed efforts to uplift the teaching profession, such as conducting marketing campaigns and celebrating excellent teachers, or teaching successes as recruitment strategies.

Similarly, other strategies promoted by low-use states include providing recommendations to districts and schools around how to best support new teachers with positive working conditions, such as requirements for planning time and limited participation of beginning teachers in non-instructional activities (North Carolina Department of Public Instruction, 2015). To attract teachers to hard-to-staff schools, Utah recommended providing resources to hard-to-staff schools to develop interesting programs and providing well-resourced classrooms as a means to attract teachers (Utah State Office of Education, 2015).

Discussion

The EA Toolkit and specifically the Sample Plan influenced the way high-use states conceptualized their strategies to ensure equitable distribution of excellent educators. While it certainly may be the case that talent management is a more politically feasible strategy at the state level than delving into local schools' working conditions, a more compelling case is that the GTL Center Sample Plan provided a conceptual roadmap that framed what state education agencies came to perceive as viable policy options.

In creating a suite of tools and resources for state equitable access plan development that simultaneously highlighted issues of expressed importance to the GTL Center, the GTL Center advanced strategies to resolve inequitable distribution regardless of root causes or unique state contexts. The overriding emphasis on comprehensive talent management in the GTL Center's suite of technical assistance tools and in the EA toolkit itself indicates that the GTL Center, in its role as a federally funded intermediary organization, advanced one policy idea (a comprehensive approach to talent management) around teacher quality. Thus, rather than serving as a toolkit to support equitable access plan development, the toolkit narrowed and informed the menu of policy ideas around human capital management for states using the IO's support.

Conclusion

Literature exploring the role of toolkits and technical assistance in education policy is not well developed. From a critical and discursive perspective, this current work begins to delve into the ways in which toolkits, and the intermediary organizations tasked and paid to develop them, shaped the policy ideas of the state education agencies that used the resources.

Toolkits are proving to be effective at educating end-users and/or facilitating behavior change—albeit in part by shaping and framing the ways end-users engage with the knowledge base. However, because the evidence base is not specified in toolkits, users may make decisions without sufficiently understanding the deliberate inclusion and exclusion of sources that went into the development of the toolkit itself (see Barac et al., 2015; Hamilton, 2006). It remains problematic that toolkits proffer ideas to policymakers but fail to provide the evidence and corresponding analysis of what makes the ideas themselves more attractive than others. For instance, why is targeting state education agency's solutions to the equitable distribution of excellent educators around comprehensive approaches to talent management a better or more evidence-based strategy than addressing the conditions under which educators work? In the toolkit, there is no discussion of why certain ideas are put forward, or of their alternatives. Rather, toolkits offer ideas and innovations considered acceptable by its author without an analysis of what makes them acceptable.

Preliminary conclusions raise implications for the policy process in a policy arena increasingly crowded by advocacy organizations and intermediary organizations, each with their own positions on the best ways to reform education. Toolkits are one mechanism in the knowledge regime that served to sift and winnow policy ideas, elevating some policy ideas over others. More broadly, technical assistance tools coded as non-partisan support may play an even larger role than research in shaping the policy ideas that state education agencies elect to implement.

Note

[1] High-use states in this analysis included Alabama, Connecticut, Maine, Nevada, Oregon, Vermont, and Wisconsin. Low-use states in this analysis included Colorado, Florida, Hawaii, Illinois, Indiana, Kentucky, Maryland, Missouri, Montana, New Mexico, Nebraska, North Carolina, South Dakota, Texas, Utah, Washington, and Wyoming.

References

Alabama State Department of Education. (2015). *Alabama state plan to ensure equitable access to excellent educators*. https://www2.ed.gov/programs/titlei-parta/equitable/alequityplan92815.pdf

Amsallem, E., Kasparian, C., Cucherat, M., Chabaud, S., Haugh, M., Boissel, J., & Nony, P. (2007). Evaluation of two evidence-based knowledge transfer interventions for physicians. A cluster randomized controlled factorial design trial: the CardioDAS Study. *Fundamental & Clinical Pharmacology, 21*(6), 631–641.

Anderson, G., & Donchik, L. M. (2014). Privatizing schooling and policy making: The American Legislative Exchange Council and new political and discursive strategies of education governance. *Educational Policy*, 1–43. http://doi.org/10.1177/0895904804270777

Au, W., & Ferrare, J. (2014). Sponsors of policy: A network analysis of wealthy elites, their affiliated philanthropies, and charter school reform in Washington State. *Teachers College Record, 116*(8), 1–24.

Barac, R., Stein, S., Bruce, B., & Barwick, M. (2015). *Scoping review of toolkits as a knowledge translation strategy in health*. http://doi.org/10.1186/s12911-014-0121-7

Barnes, C. A., Goertz, M. E., & Massell, D. (2014). How state education agencies acquire and use research knowledge for school improvement. In K. S. Finnigan & A. J. Daly (Eds.), *Using research evidence in education: from the schoolhouse door to capitol hill* (pp. 99–116). New York, NY: Springer International Publishing.

Beyer, J. M. (1997). Research utilization: Bridging the gap between communities. *Journal of Management Inquiry, 6*, 17–22.

Biddle, B. J., & Anderson, D. S. (1991). Social research and educational change. In D. S. Anderson & B. J. Biddle (Eds.), *Knowledge for policy: Improving education through research* (1st editio). Bristol, PA: The Falmer Press, Taylor & Francis.

Blyth, M. (2011). Ideas, uncertainty, and evolution. In D. Beland & R. H. Cox (Eds.), *Ideas and politics in social science research* (1st ed.). New York, NY: Oxford University Press.

Campbell, J. L. (1998). *Institutional analysis and the role of ideas in political economy*. http://doi.org/10.1023/A:1006871114987

Campbell, J. L., & Pedersen, O. K. (2015). Policy ideas, knowledge regimes and comparative political economy. *Socio-Economic Review, 13*(4), 679–701. http://doi.org/10.1093/ser/mwv004

Center on Great Teachers and Leaders. (2015). *Resource 9: Sample equitable access to excellent educators plan*. Washington, DC: Center on Great Teachers and Leaders.

Cohen, D. K., & Weiss, J. A. (1977). Social science and social policy: Schools and race. In C. H. Weiss (Ed.), *Using social research in public policymaking* (1st ed., pp. 67–84). Lexington, MA: Lexington Books.

Cooper, A., & Shewchuk, S. (2015). Knowledge brokers in education: How intermediary organizations are bridging the gap between research, policy, and

practice internationally. *Education Policy Analysis Archives, 23*(118).

Davies, H. T. O., Nutley, S. M., & Smith, P. C. (Eds.). (2000). *What works? Evidence-based policy and practice in public services*. Bristol, UK: The Policy Press.

Dobbins, M., Robeson, P., Ciliska, D., Hanna, S., Cameron, R., Mara, L. O., … Mercer, S. (2009). A description of a knowledge broker role implemented as part of a randomized controlled trial evaluating three knowledge translation strategies. *Implementation Science, 4*(23), 1–9. http://doi.org/10.1186/1748-5908-4-23

Estabrooks, C. (1999a). Modeling the individual determinants of research utilization. *Western Journal of Nursing Research, 21*(6), 758–772.

Estabrooks, C. (1999b). The conceptual structure of research utilization. *Research in Nursing & Health, 22*, 203–216.

Feldman, P. H., Nadash, P., & Gursen, M. (2001). Researchers and policy makers in long-term care: Or, researchers are from Mars; Policy makers are from Venus. *The Gerontologist, 41*(3), 312–321.

Glegg, S. M., & Hoens, A. (2016). Role domains of knowledge brokering: A model for the health care setting. *Journal of Neurologic Physical Therapy: 40*(2), 115–123. https://doi.org/10.1097/NPT.0000000000000122

Goldie, D., Linick, M., Jabbar, H., & Lubienski, C. (2014). Using bibliometric and social media analyses to explore the "echo chamber" hypothesis. *Educational Policy, 28*(2), 281–305. http://doi.org/10.1177/0895904813515330

Gould, R. V., & Fernandez, R. M. (1989). Structures of mediation: A formal approach to brokerage in transaction networks. *Sociological Methodology, 19*, 89–126.

Hall, P. A. (Ed.). (1989). *The political power of economic ideas: Keynesianism across nations* (1st edition). Princeton, NJ: Princeton University Press.

Hall, P. A. (1993). Policy paradigms, social learning, and the state: The case of economic policymaking in Britain. *Comparative Politics, 25*(3), 275–296. http://doi.org/10.2307/422246

Hamilton, E. R. (2006). *Work in progress: Building capacity for research- based adaptation of educational innovation*.

Henig, J. R. (2008). The evolving relationship between researchers and public policy. *The Phi Delta Kappan, 89*(5), 357–360.

Holmes, D., Murray, S., Perron, A., & Rail, G. (2006). Deconstructing the evidence-based discourse in health sciences: Truth, power, and fascism. *International Journal of Evidence-Based Healthcare, 4*(3), 180.

Knott, J., & Wildavsky, A. (1980). If dissemination is the solution, What is the problem? *Knowledge: Creation, Diffusion, Utilization, 1*(4), 537–78.

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. *Learning in doing* (Vol. 95). Retrieved from http://books.google.com/books?id=CAVIOrW3vYAC&pgis=1

Lomas, J. (2007). The in-between world of knowledge brokering. *BMJ: British Medical Journal, 334*(7585), 129–132.

Lubienski, C., Brewer, T. J., & LaLonde, P. (2016). Orchestrating policy ideas: Philanthropies and think tanks in US Education policy advocacy networks. *Australian Educational Researcher, 43*(1), 55–73. http://doi.org/10.1007/

s13384-015-0187-y

Lubienski, C., Scott, J., & DeBray, E. (2011). The rise of intermediary organizations in knowledge production, advocacy, and educational policy. *Teachers College Record*.

Lubienski, C., Weitzel, P., & Lubienski, S. (2009). Is there a "consensus" on school choices and achievement? *Educational Policy, 23*(1), 161–193.

Mason, S. A. (2013). The federal challenge to university-based education research in the United States: Turning research into policy and practice. In B. Levin, J. Qi, H. Edelstein, & J. Sohn (Eds.), *The impact of research in education: an international perspective* (1st ed., pp. 209–242). Chicago, IL: The Policy Press.

Minnici, A. (2013, August 25). *Creating a coherent and comprehensive approach to managing educator talent: The role of the state*. [Powerpoint presentation]. Rhode Island Board of Education Meeting. https://gtlcenter.org/sites/default/files/Creating_Coherent_and_Comprehensive_Approach.pdf

Neal, J. W., Neal, Z. P., Kornbluh, M., Mills, K. J., & Lawlor J. A. (2015). Brokering the research-practice gap: A typology. *American Journal of Community Psychology, 56*, 422-435.

Ness, E. C., & Gandara, D. (2014). Ideological think tanks in the states: An inventory of their prevalence, networks, and higher education policy activity. *Educational Policy, 28*(2), 258–280. http://doi.org/10.1177/0895904813515328

Nevada Department of Education. (2015). *Nevada plan to ensure equitable access to excellent educators*. https://www2.ed.gov/programs/titleiparta/equitable/nvequityplan060115.pdf

North Carolina Department of Public Instruction. (2015). *North Carolina plan to ensure equitable access to excellent educators*. https://www2.ed.gov/programs/titleiparta/equitable/ncequityplan111215.pdf

Nutley, S., Walter, I., & Davies, H. (2007). *Using evidence: How research can inform public services*. Bristol, UK: Policy Press at the University of Bristol.

Odden, A. R. (2011). *Strategic management of human capital in education*. Abingdon, UK: Routledge.

Patton, M. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Poulantzas, N. (1975). *Classes in contemporary capitalism*. London, UK: NLB.

Redding, C., & Smith, T. M. (2016). Easy in, easy out: Are alternatively certified teachers turning over at increased rates? *American Educational Research Journal. 53*(4) 1086–1125. https://doi.org/10.3102/0002831216653206.

Rose, R. (1977). Disciplined research and undisciplined problems. In C. H. Weiss (Ed.), *Using social research in public policymaking* (1st ed., pp. 23–36). Lexington, MA: Lexington Books.

Rowan, B., Miller, R., & Camburn, E. (2009). *School improvement by design: Lessons from a study of comprehensive school reform programs*. Retrieved from http://repository.upenn.edu/cpre_researchreports/54

Saldana, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks, CA: Sage Publications.

Schmidt, V. A. (2011). Reconciling ideas and institutions through discursive institutionalism. In D. Beland & R. H. Cox (Eds.), *Ideas and politics in social*

science research (1st ed.). New York, NY: Oxford University Press.

Scott, J., & Jabbar, H. (2014). The hub and the spokes: Foundations, intermediary organizations, incentivist reforms, and the politics of research evidence. *Educational Policy, 28*(2), 233–257. http://doi.org/10.1177/0895904813515327

Scott, J., Jabbar, H., LaLonde, P., Debray, E., & Lubienski, C. (2015). Evidence use and advocacy coalitions: Intermediary organizations and philanthropies in Denver, Colorado. *Education Policy Analysis Archives, 23*(124), 1–21.

Suleiman, E. N. (2013). *Dismantling democratic states*. Princeton, NJ: Princeton University Press.

Sykes, G., & Dibner, K. (2009). *Fifty years of federal teacher policy: An appraisal*. Washington, DC: Center on Education Policy.

Trinder, L., & Reynolds, S. (2000). *Evidence-based practice: A critical appraisal*. Malden, MA: Blackwell Science.

Trujillo, T. (2014). The modern cult of efficiency: Intermediary organizations and the new scientific management. *Educational Policy, 28*(2), 207–232. http://doi.org/10.1177/0895904813513148

Tseng, V. (2012). The uses of research in policy and practice. *Social Policy Report, 26*(2).

Turnhout, E., Stuiver, M., Klostermann, J., Harms, B., & Leeuwis, C. (2013). New roles of science in society: Different repertoires of knowledge brokering. *Science and Public Policy, 40*, 354–365. http://doi.org/10.1093/scipol/scs114

U.S. Department of Education. (2016). *Improving outcomes for youth with disabilities in juvenile corrections*. Washington, DC: Author. https://osepideasthatwork.org/jj

U.S. Department of Education. (2009). *Race to the top program Executive summary.* Washington, DC: Author.

U.S. Department of Education. (2004). *Tool kit on teaching and assessing students with disabilities*. Washington, DC: Author. https://osepideasthatwork.org/federal-resources-stakeholders/tool-kits/tool-kit-teaching-and-assessing-students-disabilities

U.S. Department of Education, Office of English Language Acquisition. (2017). *English learner tool kit* (2nd Rev. ed.). Washington, DC: Author.

Useem, M. (1977). Research funds and advisers: The relationships between academic social science and the federal government. In C. H. Weiss (Ed.), *Using social research in public policymaking* (1st ed., pp. 125–140). Lexington, MA: Lexington Books.

Utah State Office of Education. (2015). *Utah plan to ensure equitable access to excellent educators*. https://www2.ed.gov/programs/titleiparta/equitable/utequityplan82715.pdf

Wallerstein, I. M. (2001). *Unthinking social science: The limits of nineteent century paradigms*. Philadelphia, PA: Temple University Press.

Ward, V., House, A., & Hamer, S. (2009). Knowledge brokering: The missing link in the evidence to action chain. *Evidence and Policy, 5*(3), 267–279.

Weiss, C. H. (1999). The interface between evaluation and public policy. *Evaluation, 5*(4), 468–486.

Weiss, C., & Bucuvalas, M. (1980). *Social science research and decisionmaking*. New York, NY: Columbia University Press.

Wisconsin Department of Public Instruction. (2015). *Wisconsin plan to ensure equitable access to excellent educators*. https://www2.ed.gov/programs/titlei-parta/equitable/wiequityplan082715.pdf

Yamada, J., Shorkey, A., Barwick, M., Widger, K., & Stevens, B. J. (2015). *The effectiveness of toolkits as knowledge translation strategies for integrating evidence into clinical care: A systematic review*. http://doi.org/10.1136/bmjopen-2014-006808