

CALDER Polycymakers Council

Opinion Brief

Maximizing Research Use in the World We Actually Live In: Relationships, Organizations, and Interpretation

Carrie Conaway

Massachusetts Department of Elementary and Secondary Education

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When I started my job as research director of the Massachusetts Department of Elementary and Secondary Education twelve years ago, I thought my job was to figure out what worked. My agency was just beginning to have access to new and exciting longitudinal data on students and educators. I envisioned that I'd use those data along with strong designs for causal inference to determine which programs and policies were working and which were not. Once we knew those answers, I figured, we would get better policy that would improve outcomes for Massachusetts students.

But in my twelve years in this job, I've learned that the process of improving policy¹ through research is much subtler and more complex than I had initially imagined. Research influences policy more often than much of the academic community thinks, and more frequently every day as we learn how to better connect research and policymaking. But its influence is less linear than researchers expect, and it is difficult, if not impossible, to measure in a causal inference framework. That is because it is driven as much by relationships and organizational capacity as by the actual information studies produce. Research use operates through conversations, not code; structures in organizations, not standard errors; relationships, not randomized controlled trials.

I worry that the growing national efforts to connect research and policy too frequently start from the same “find what works” frame of mind that I did 12 years ago. The “find what works” approach misunderstands the problem of research use as one of lack of information—either lack of information about the impact of a policy or lack of awareness by the policymaker about the available information—and a need for “translation” across sectors (Penuel et al. 2015). This belies the research literature about how research actually plays into the policy decision process. If research is insufficiently used in policymaking, it's because we have too few conversations between the policy and research communities, not because we have too few policy briefs.

The research on research use is clear: If we want research to matter for policy, we need to devote resources to building relationships and strengthening organizational practices, in service of building organizations that learn. This will require researchers, universities, policymakers, practitioners, and organizations, like the CALDER Policymakers Council (www.caldercouncil.org), to reconsider their

¹ This essay centers on the influence of research on policy, rather than practice. This is both because I have more expertise in the policy process than I do in issues of direct practice and because CALDER's research tends to focus more on policy. I suspect, however, that many of the same insights would also apply in practice settings.

activities and priorities and create new ways of working across sectors. This work will be complex, messy, and at times uncomfortable. But it is work worth doing.

How research influences policy

The irony of my early years in my role is that if I had stopped to read the research on how research is used in policymaking, I would have been much quicker to become effective at my work. Decades of studies on this topic, starting with Carol Weiss's groundbreaking work in the 1970s, shed light on when and how research is used to effect organizational and political change.

A key finding from this literature is that decision-making is a process, not an event. Policymakers don't just mark off their calendar for "Decision Day." They gather information on an issue over time and from a variety of sources, often in the absence of a specific pending decision. They make initial choices when decision opportunities arise, and they adjust course in an iterative process (Weiss 1980, Weiss 1982, Kingdon 1984). Further, their decisions tend less to be about choosing between programs and more about designing a new system or process for a specific context (Penuel et al 2017, Penuel et al 2018). Nor, for that matter, is there a singular decision-maker. Legislators, bureaucrats, advocates, consultants, and others all play a role in the policy development and implementation process. Decisions "accrete through small uncoordinated steps taken in many offices" (Weiss 1980).

Indeed, this is how decisions are made in any organization, not just state houses and school districts. Suppose, for example, that a university was considering creating a new doctoral program in education policy. Conversations about whether to pursue this would probably take place over several years, with many different stakeholders from across the university community weighing in. Program designers would gather information from prior research, but also from other universities with similar programs, stakeholders, funders, market conditions, and so forth. The moment when the provost or president approved the program would be the culmination of years of incremental discussions and decisions, each of which subtly influenced the ultimate outcome. And that process would continue even after the decision was made, as the program was implemented and the department learned which dimensions were succeeding or needed improvement.

It should be unsurprising to researchers, then, that policy decisions work exactly the same way. Insights from research certainly weigh in policymakers' minds, but so too do many other factors—personal and

community values, constituent concerns, budgets, legal constraints, and so on (Weiss 1982). In fact, that's how a democratic system is supposed to work. Policymakers' jobs are to consider the available information on an issue and use it in conjunction with their values and professional judgment to make decisions (Brighthouse et al 2018).

Research may inform those judgments directly, through what Carol Weiss calls "instrumental" use of research (1977). This type of use is what I had in mind when I arrived at my agency—using findings from particular studies to determine next steps for policy development. But more often, research informs decisions indirectly, by creating new ways of thinking about problems. Weiss calls this "conceptual" or "enlightenment" use (Weiss 1977, Weiss 1980). This can take different forms, such as introducing new concepts, seeing problems in a new light, shifting understandings about possible solutions, or providing a framework to guide action (Farrell and Coburn 2016b). Weiss argues that "the major effect of research on policy may be the gradual sedimentation of insights, theories, concepts, and ways of looking at the world" (1977).

How do policymakers gain access to insights from research? A recent study by the National Center for Research on Policy and Practice sheds light. Surveying a nationally representative sample of district leaders in midsize and large districts, the report finds that both the format and the messenger are critical. When asked to cite a piece of research that influenced their work, 58 percent of respondents cited a book; the next most common was a policy report, at 17%. Individual articles from peer-reviewed journals were even less frequently cited (Penuel et al 2018). Respondents also rarely reported learning about research directly from researchers, instead relying on trusted, known intermediaries. The most common way that district respondents reported accessing research "often" or "all the time" was through their professional associations, at 53 percent. Conferences came in next at 40 percent; people in other school districts third at 39 percent (Penuel et al 2017). Formal resources aimed at providing information to practitioners but lacking sustained personal connections, such as the What Works Clearinghouse and the Regional Education Laboratories, and translators of research such as print or social media were used at less than half these rates.

Organizational context and structure can also advance research use. Where research use is most sophisticated, policymakers may gain access to research through a person who sits between the research and policy communities, often referred to in this literature as a broker or boundary-spanner (Penuel et al 2015). Brokers engage in "intentional efforts...to make space for and enter into joint work with partners whose work involves responsibilities, expertise, pressures, and strategies different from one's own"

(Penuel et al 2015:190). They create organizational norms and routines that allow for connections across perspectives, and they push people beyond their comfort zone in service of advancing the partnership's goals. By doing so, they help span gaps in perspective and values across professional communities and find productive ways for them to work together (Farley-Ripple et al 2018). They also increase the absorptive capacity of organizations--that is, their ability to interpret and act on findings from research (Farrell and Coburn 2016a). At their best, brokers help organizations learn.

Maximizing research use in the world we actually live in

Instead of beginning with a model of decision-making as Decision Day, let us instead begin with a model of decision-making as it happens in the real world: working through relationships, embedded in organizations, influenced by information from many sources, and evolving over time. If this is how policy decisions are made, then the next question for the research community is: What is the best way to maximize the influence of research on this untidy, indirect process?

The crucial insight from the research literature is this: Research use is relational, organizational, and interpretive. To have impact, research must be embedded in organizational structures and personal, trusting relationships that give policymakers space to interpret research and construct their own meaning from it (Coburn 2018; Farrell, Coburn, and Chong 2018; Farley-Ripple et al 2018). Thankfully, several promising new strategies for addressing this issue have emerged--ones that explicitly acknowledge the role of relationships, organizations, and interpretation in helping policymakers to use information more effectively. The CALDER Policymakers Council is one example of this type of work.

Networks and professional associations

If relationships among people are how research use happens, then networks and professional associations are linchpins in that process. And if the goal is to drive research use among policymakers, then an obvious first step is to put policymakers and researchers in the same room.

The CALDER Policymakers Council is a rare entity in that it explicitly aims to create connections not only between individual researchers and policymakers working together on specific projects, but also across research and policy partners working on a broader set of common questions about education policy. Opportunities for policymakers engaged in research work to meet with their peers from other states are uncommon, and all the more so when they are meeting about the actual content of the findings, rather than how to work with researchers.

These connections are further supported through CALDER’s explicit focus in its latest iteration on cross-state research, such as its recently published cross-state comparison of the value-added of elementary and middle school principals (Austin et al, 2019). CALDER Policymakers Council members also weigh in on the CALDER research agenda and the focus of a special topics conference each year, creating even more opportunities for researchers and policymakers to work together to understand and interpret research findings.

Embedded research directors

I doubt my agency had read the research on research brokers or absorptive capacity before creating my position in Massachusetts; after all, they had no broker to bring it to their attention. But nonetheless a broker was exactly what they created: an internal role fostering relationships between policymakers and researchers and shifting organizational practices in a way that increased the ability of the agency to use research effectively.

Situating this type of role internal to an organization allows the research director to be more aware of the current policy issues and—crucially—more connected to the agency’s needs and ongoing routines. I offer some “anecdotal” to make my case. Last year, I forwarded to my deputy commissioner some materials on options for measuring student growth. He wrote back, “Many people send me articles that I have neither the time nor the inclination to read. What’s annoying about you is that the articles you send are so on point to the work we’re doing that I feel compelled to read them.” I could not have annoyed my deputy nearly as effectively if my role were not deeply ingrained in the agency’s work.

Of course, embedded research directors can only be effective to the degree their positions are given the positional and relational authority to influence organizational practice. Siloed away from decision-makers, operating only within one policy office or division, or given too many responsibilities for time-sensitive, intensive work such as assessment or accountability, they cannot hope to increase the organization’s overall capacity to build and use research evidence (Conaway 2015; Schwartz 2015). Conversely, when placed into a supportive structure, embedding a research director is one of the most effective ways for organizations to accelerate this work.

Research director roles have been relatively common, though not ubiquitous, in larger school districts for a while now. But when I started in my role twelve years ago, I was the only state education agency research director of this type in the nation. I was what Dan Goldhaber memorably described as a “golden

unicorn”—that rare person working in a policy or practice setting who has “an excellent grasp of what constitutes good research” (Goldhaber 2017).

Well, I may have been a unicorn, but I was alone in the forest until Nate Schwartz came along. Nate joined the Tennessee Department of Education in a role comparable to mine in July 2012. That single connection to another person doing similar work dramatically improved my own. It allowed me to reflect on my own practice and gave me access to new ideas, strategies, and opportunities that I could then adapt and implement in my own setting. Now the golden unicorns extend nationally into at least 15 states and many more districts. Many of the CALDER Policymakers Council members—including Nate and myself—play such a role.

Research-practice partnerships

An increasingly popular strategy for conducting policy research with impact is via research-practice partnerships (RPPs), defined by Coburn and Penuel (2016) as “long-term collaborations between practitioners and researchers that are organized to investigate problems of practice and solutions for improving schools and districts.” RPPs differ from traditional research models in part by focusing on the problems practitioners want to solve rather than the questions researchers want to answer—a solution to the information problem. But they also differ by explicitly elevating and supporting the relationship side of research use. They are intentionally organized to build sustained relationships between researchers and practitioners as a means of improving practice.

Most RPPs are designed to improve outcomes for students while simultaneously improving access to and use of research in education organizations and the relevance of research conducted by partners. The research on whether RPPs attain these goals is nascent, and the nature of the intervention does not lend itself easily to causal inference (Coburn and Penuel 2016). But the National Center for Research in Policy and Practice (NCRPP) conducted a descriptive study of the winners of Institute of Education Sciences RPP grants that lends some insight on the organizational changes that may occur through RPPs (Farrell et al, 2018).

The NCRPP study finds that “the majority of practitioners reported becoming better at using research in their work and were more likely to do so because of their participation in the partnership. Almost all of the researchers agreed that they had become better at conducting research that meets the needs of practitioners” (Farrell et al 2018:3). Interviews with RPP participants revealed that “both education leaders and researchers reported shifts in three key areas: their orientation toward research, their

knowledge and skills about the research process, and their communication practices with stakeholders.” Further, their peers on the other side of the partnership also observed these changes (Davidson 2018).

RPPs are not the solution to all our research impact woes. They are not appropriate for all research questions; some require a more distant, hands-off relationship, and some don’t merit the deep investment of time and effort for an RPP to flourish. They are resource-intensive and thus tend to privilege more senior researchers, who worry less about getting publications for tenure, and larger education organizations, which tend to have greater administrative capacity for research and larger sample sizes that make inferential statistics more useful. They can be challenging to implement and sustain, precisely because they push the traditional boundaries of research and practice.

But having participated in several RPPs myself, I can attest to their value for changing how agencies use research evidence. This is particularly when the RPP is focused on a topic of long-term strategic interest for policymaking, as is my agency’s partnership with CALDER around educator preparation and licensure. I can also attest to their impact on the relevance of research conducted by the research partners. As researchers get more connected to and embedded in organizations, they are better able to identify questions that practitioners value answering and find ways to include those questions in their research agendas.

From organizations that do to organizations that learn

All of these strategies hold great promise for increasing the influence of research on policy. But I think we can push even further. What if the research community thought of our end goal not as getting ideas from research into policy decisions, but as helping policy and practice organizations shift from organizations that *do* to organizations that *learn*?

Our whole way of approaching our work would be different. We would recognize that the most effective way to build systematic capacity to learn is through sustained connections across organizations and people. Therefore, we would value the time we spend on building relationships that allow us to ask meaningful questions and learn from their answers as much as we value the time we spend on producing research itself. We would appreciate that it is these relationships that allow ideas from research to take root.

We would see that the research community's contribution operates as much through its structured approach to learning as through any specific knowledge it generates. We would take advantage of that by collaborating to build structured approaches to learning within education organizations, supported through strategically positioned research brokers and partnerships. Crucially, these approaches would include organizational routines that allow policymakers and practitioners to make meaning from research and take appropriate action. Through all of this effort, ideas would diffuse organically across the policy and research communities, enriching both and making both more effective than they would otherwise have been (Gordon, Palmer, and Darling-Hammond 2019).

Enacting this vision would require change on the part of education agencies, individual researchers, universities, and associations. Education agencies, whether states or districts, would need to invest in greater capacity for building and using evidence as a core part of their work. This capacity could come in a variety of forms: for example, training in the principles of evidence use; embedded research directors; and/or research partnerships. But the expectation should be that all education administrators are capable of evaluating evidence and using it to improve their organizations. The Institute for Education Sciences could play a role by catalyzing these investments through research partnership and training grants and by directly funding the embedded research directors that we know can dramatically shift organizational practices.

The work of individual researchers who want to help organizations learn would shift toward one of several pathways to impact. Some researchers might participate directly in building structured approaches to learning by serving as embedded research directors, brokers, and/or research partners themselves. But even researchers outside those roles could still influence organizational learning. Those who are working with a district or state to conduct a study could prioritize creating routines that create space for sharing preliminary findings and discussing and interpreting results, in the same way that a formal broker would insist upon. Others could consider writing a book, framing article, or broad, non-technical pieces about their field of inquiry that could help shift policymakers' thinking, or they could share their work through presentations at local and national meetings of policymakers.

Universities would need to shift in two ways. First, they would need to reconsider the balance of how different types of output are valued by their institutions, to put greater emphasis on effort spent on impact outside the ivory tower. At a time when the value of higher education is increasingly questioned, this would be a direct way to demonstrate the university's impact in the community. For inspiration, they might look to the Research Excellence Framework, which the United Kingdom uses to assess the quality

of research output from its institutes of higher education. Impact is explicitly included as a criterion, and the UK has developed nuanced ways of measuring impact across the full range of academic disciplines (Research Excellence Framework 2019).

Second, universities would need to create opportunities for researchers, policymakers, and practitioners to learn the skills needed to do this work. Right now, people learn this the hard way, through investing a substantial amount of time and making mistakes along the way. Education organizations could much more quickly learn how to learn if their own staff and their research partners were explicitly trained in these skills. This includes how to use and build evidence as part of program and policy development, how to design a collaborative learning agenda, how to critically evaluate whether research is convincing and relevant, how to incorporate research into improvement processes, how to broker relationships across research and practice organizations, and so on. Training opportunities could range from short professional development or workshop opportunities for existing practitioners and researchers to full degree programs for masters or doctoral students preparing for these roles.

Organizations like the CALDER Policymakers Council could play a unique role in this work. If the Council aims to increase the influence of research on policy, it would invest even more in building strong relationships between researchers and policymakers. The Policymakers Council could become one of the few spaces where perspectives from policy and research are both valued and where connections can be built across sectors. And it could demonstrate for others the benefits of taking this approach.

To achieve the goal of increasing research use for policymaking, we need to broaden our conception of research use to include the relational, organizational, and interpretive activities I have described in this essay. Society has invested tremendous resources in both education and research. We will maximize the return on that investment when we move beyond simplistic models of research use to a model of building educational organizations that learn.

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References

- Austin, W., Chen, B., Goldhaber, D., Hanushek, E., Holden, K., Koedel, C., Ladd, H., Luo, J., Parsons, E., Phelan, G., Rivkin, S., Sass, T., & Turaeva, M. (2019). *Path to the principalship and value-added: A cross-state comparison of elementary and middle school principals* (CALDER Working Paper No. 213-0119-1).
- Harry, B., Ladd, H. F., Loeb, S., & Swift, A. (2018). *Educational goods: Values, evidence, and decision-making*. Chicago, IL: University of Chicago Press.
- Coburn, C. (2018, January 19). Pathways from research to policy: Implications for researchers and policymakers (part 1 of 2) [Blog post]. Retrieved from <https://nzareblog.wordpress.com/2018/01/19/coburn-research-policy-1/>
- Coburn, C., & Penuel, W. R. (2016). Research-practice partnerships in education: Outcomes, dynamics, and open questions. *Educational Researcher* 45(1):48–54.
- Conaway, C. (2015). Better policy through research: Pursuing high-impact research in state education agencies.” In *The SEA of the future: Building agency capacity for evidence-based policymaking*. Center for Reinventing Public Education, Building State Capacity and Productivity Center. http://www.bsccenter.org/resources/publications/SEAF_5_11.2015_final.pdf
- Davidson, K. (2018, July 9). What happens when educators and researchers work together in partnerships [Blog post]. Retrieved from http://blogs.edweek.org/edweek/urban_education_reform/2018/07/what_happens_when_educators_and_researchers_work_together_in_partnerships.html
- Farley-Ripple, E., May, H., Karpyn, A., Tilley, K., & McDonough, K. (2018). Rethinking connections between research and practice in education: A conceptual framework. *Educational Researcher* 47(4):235–245.
- Farrell, C. C., & Coburn, C. E. (2016a). Absorptive capacity: A conceptual framework for understanding district central office learning. *Journal of Educational Change* 18(2):135-159.
- Farrell, C. C. & Coburn, C.E. (2016b). What is the conceptual use of research, and why is it important? WT Grant Foundation. Retrieved from <http://wtgrantfoundation.org/conceptual-use-research-important>
- Farrell, C. C., Coburn, C. E., & Chong, S. (2018). Under what conditions do school districts learn from external partners? The role of absorptive capacity. *American Education Research Journal*. <https://doi.org/10.3102/0002831218808219>
- Farrell, C. C., Davidson, K. L., Repko-Erwin, M., Penuel, W. R., Quantz, M., Wong, H., Riedy, R., & Brink, Z. (2018). *A descriptive study of the IES researcher-practitioner partnerships in education research program: Final report* (Technical Report No. 3). Boulder, CO: National Center for Research in Policy and Practice. Retrieved from http://ncrpp.org/assets/documents/NCRPP-Technical-Report-No-3_Full-Report.pdf
- Goldhaber, D. (2018). Impact and your death bed: Playing the long game.” *Education Finance and Policy* 13(1):1–18.

- Gordon, D., Palmer, S., & Darling-Hammond, S. (2019). *Transforming the education sector into a learning system: Harnessing the power of continuous improvement, research & development, and data to improve outcomes for each and every Child*. Washington, DC: Education Counsel. Retrieved from <http://educationcounsel.com/?publication=transforming-the-education-sector-into-a-learning-system-harnessing-the-power-of-continuous-improvement-research-development-and-data-to-improve-outcomes-for-each-and-every-child>
- Kingdon, J. W. (1984). *Agendas, alternatives, and public policies*. Boston, MA: Little, Brown.
- Penuel, W. R., Allen, A-R., Coburn, C. E., & Farrell, C. (2015). Conceptualizing research-practice partnerships as joint work at boundaries.” *Journal of Education for Students Placed at Risk* 20:1–2, 182–197.
- Penuel, W. R., Briggs, D. C., Davidson, K. L., Herlihy, C., Sherer, D., Hill, H. C., Farrell, C., & Allen, A-R. (2017). How school and district leaders access, perceive, and use research.” *AERA Open* 3(2):1–17.
- Penuel, W. R., Farrell, C.C., Allen, A-R., Toyama, Y., & Coburn, C. E. (2018). What research district leaders find useful. *Educational Policy* 32(4):540–568.
- Research Excellence Framework. (2019, February). *Panel criteria and working methods*. Retrieved from <https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/>.
- Schwartz, Nathaniel. (2015). Making research matter for the state education agency. In *The SEA of the Future: Building Agency Capacity for Evidence-Based Policymaking*. Center for Reinventing Public Education, Building State Capacity and Productivity Center. Retrieved from http://www.bscpcenter.org/resources/publications/SEAF_5_11.2015_final.pdf
- Weiss, C. (1977). Research for policy’s sake: The enlightenment function of social research. *Policy Analysis* 3(4):531–545.
- Weiss, C. (1980). Knowledge creep and decision accretion. *Knowledge: Creation, Diffusion, Utilization* 1(3):381–404.
- Weiss, C. (1982). “Policy Research in the Context of Diffuse Decision-Making.” *Journal of Higher Education* 53(6):619–639.