Title
What does the research (and LEA leadership) say on research use? Examining the alignment between research design and district leader engagement

Choice of section
1. Organization of Schools and Systems
2. Education Policies

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Panel Justification

The use of research evidence in education has long centered on the tensions between the "two worlds" of research and practice (Caplan, 1979). Research can be slow, cumbersome, costly, inaccessible in language and venue, and lacking in direct relevance to education leaders' local needs. Education leaders' needs can require a quick turnaround of locally relevant evidence, cost effective techniques, accessible findings with clear application, and important attention to both jurisdictional and ethical considerations. Despite these tensions, education leaders report valuing and using research for a variety of purposes in their work (Penuel et al., 2016).

Policies that aim to expand the use of research evidence in education, however, are arguably narrow in scope. The federal Every Student Succeeds Act (ESSA) and many state policies require education leaders to justify the selection of interventions using evidence from effectiveness studies based in long-established causal research methods, such as randomized controlled trials, quasi-experimental methods that control for relevant differences in the sample, and correlational survey methods with controls (Civic Impulse, 2017). Because of the ability to isolate the influence of a specific treatment, these methods can warrant claims made about the effectiveness of that treatment, can be tested for replication in other settings, and can be generalized to the population that the sample represents.

On the other hand, education leaders sometimes find causal research methods to be logistically cumbersome, cost ineffective, ethically unacceptable, or ineffective in addressing pressing

questions that comprise the range of work that education leaders do toward educational improvement. In some cases, leaders may prefer to conduct or draw on syntheses of research evidence, mixed methods research, qualitative methods such as case studies or ethnography, descriptive research, participatory research involving those whom are impacted, or systematic theoretical methods (Davidson, Farrell, & Penuel, forthcoming). The conduct and use of rigorous research, furthermore, means ensuring that the methods used are those that are best suited to addressing the questions at hand, are systematically conducted such that the claims made are warranted by the evidence, are clear in the applicability and limitations of findings, and are ethically justified (Creswell, 2003).

Under what conditions, then, are findings from research studies with different methods more or less useful to education leaders? What tradeoffs must be weighed with regard to different research designs? How can researchers and education leaders navigate the tensions between the ideal research design and the demands they face on the ground?

In this moderated discussion panel, we will first present findings from a national survey that speak to the variety of research methods that education leaders use for different purposes in their work (Penuel et al., 2016). We will then hear two different perspectives from education leaders located in the research and evaluation departments of school district central offices regarding the tradeoffs they face in conducting and using research based in causal and other methods. The moderator, a third district-based researcher with extensive experience in research and policy, will offer additional important perspectives and encourage active discussion among audience members and panelists.

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leaders. Technical Report No. 1. Boulder, CO: National Center for Research in Policy and Practice.

What Types of Research Do Education Leaders Find Useful, and for What Purposes?
Kristen L. Davidson, Caitlin C. Farrell, and William R. Penuel, University of Colorado Boulder

District and school leaders report using research for a variety of purposes, including those that Weiss and Bucuvalas (1980) identified as instrumental (using research to directly inform a decision), conceptual (using research to inform one's thinking more broadly), and symbolic (using research to persuade others or support a decision already made) (Coburn, Honig, & Stein., 2009; Corcoran, Fuhrman, & Belcher, 2001; David, 1981; Kennedy, 1982; Penuel, Farrell, Allen, Toyama, & Coburn, 2015; Penuel et al., 2016; Weiss, Murphy-Graham, & Birkeland, 2005). However, what types of research evidence are education leaders referring to when they claim to use research, and for what purposes? What bases of evidence are reflected in the sources of research that education leaders turn to for different purposes in their work? How do these bases of evidence compare to those mandated by policies designed to expand research use in education, such the federal Every Student Succeeds Act (ESSA)?

Using a survey of 733 district and school leaders representative of mid- to large-size districts nationwide, our research team analyzed responses to an open-ended item that asked respondents to name a particular piece of research that they found useful, and why it had been useful for their work. In initial analyses, we found that the 368 leaders who responded to the open-ended item named books most frequently (57%), followed by research or policy reports (17%), journal articles (13%), and other formats (13%). Because some leaders named the same piece of research, 262 unique sources were named, of which 44% were books, 22% research or policy reports, 18% journal articles, and 16% other formats.

Most respondents said that the pieces of research they named were useful for purposes related to supporting their own learning (30%); designing programs and policies (27%); and providing instructional leadership for others (24%). Relatively few (9%), however, said they were useful for selecting programs or interventions, despite the fact that this purpose is the focus of most policies related to the use of evidence in education (Penuel et al., 2016). Most notably, the Every Student Succeeds Act (ESSA) requires that educational leaders using federal funds to select interventions justify an intervention's effectiveness through documented research on it meeting one of three tiers of evidence: strong (randomized controlled trials); moderate (quasi-experimental studies); or promising (correlational studies with controls) (Civic Impulse, 2017). In order to meet the additional criterion of 500-participant sample sizes, research evidence that qualifies for a tier can be a single study, a combination of studies, or a systematic synthesis of studies, all of which can only include research methods that qualify for that tier.

Given this policy context, the initial findings from our study led us to dig deeper into the basis of evidence reflected in the 262 pieces of research named by survey respondents, and consider the extent to which the sources reflected the three tiers of evidence defined in ESSA. We first

determined whether each piece named reflected an original analysis that included a description of research methods; just under half (47%) of sources did so. For these sources, we then documented the type of research methods used, and whether the methods would meet one of the ESSA tiers. Less than half (43%) of these original analyses qualified for an ESSA tier, with most in the "moderate" and "promising" tiers. The remaining comprised systematic syntheses that did not meet the criteria for an ESSA tier (35%), case studies (13%), and other methods (10%).

The remaining half (53%) of sources named did not reflect original analyses. These most often represented what we called "evidence-informed frameworks" for leaders to apply to their work, where a body of research on the topic was briefly summarized, followed by a framework to apply these research findings to educators' work. A relatively small number of sources represented only anecdotal evidence, or no evidence at all.

Interestingly, however, the basis of evidence for the sources that leaders named significantly differed depending on the reason for which they said it was useful. For example, although relatively few leaders claimed that the source they named was useful for the purpose of selecting an intervention or program, by far the largest proportion of these sources reflected original analyses (76%) and qualified for an ESSA tier (40%). For other, more conceptual purposes cited by leaders, such as informing their own professional learning and providing instructional leadership, leaders more often named either systematic syntheses of research or evidence-informed frameworks.

These findings suggest that different types of research evidence may be valuable for different purposes in district and school leaders' work. Educational leaders carry a wide variety of responsibilities ranging from the selection, design, and implementation of programs, curricula, assessments, and professional development to leadership of educators at all levels of the system. For some of these purposes, causal or effectiveness studies that meet the criteria for research methods defined in policies such as ESSA (i.e., experimental, quasi-experimental, or correlational) may be particularly useful. For other purposes, syntheses of research and frameworks informed by a body of strong evidence may be more useful.

Policies designed to encourage research use in education would benefit from an expanded understanding of how multiple types of rigorous research methods—including not only quantitative research but also qualitative methods, mixed methods, systematic theoretical analyses, and research syntheses—may be useful to educators across the various responsibilities that contribute to educational improvement. Likewise, education leaders often turning to syntheses and frameworks highlights the importance of ensuring that sources that reach leaders through common venues, such as professional associations and conferences (Penuel et al., 2016), are based in rigorous research and warranted claims.

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When Causal Research Can Be Valuable to Schools and Districts, and How to Support Its Use
Darryl Hill, Fulton County Schools

Conducting randomized controlled trials (RCTs) is typically a hard sell for school district practitioners. More than a decade ago, Thomas Cook (2003) outlined a number of reasons for stakeholder resistance, many of which persist today. Perhaps the most commonly voiced objection to RCTs is that they deliberately withhold a program or intervention from a group of schools or students. Moreover, a recent examination by the American Enterprise Institute (Ginsburg & Smith, 2016) has called into question the usefulness of RCT impact estimates reported by the What Works Clearinghouse. Yet RCTs remain the gold standard for education research by providing unbiased estimates of program and policy impacts. Schools and districts offer ideal settings within which to conduct RCTs and the results gleaned from RCTs can provide stakeholders with *more* efficient pathways to program discontinuation or expansion.

In this panel, I will share my experiences having worked in two school districts in a research capacity, and explain how valuable causal research can be. I will share the details of the district framework that helped support the launch of RCTs in one district, communication strategies to facilitate stakeholder buy-in, strategies for monitoring both implementation and impact evaluation, and the challenges of bringing this type of work to scale.

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The Value of Causal Inference (or Lack Thereof) to Schools and Districts
Matthew Linick, Cleveland Metro School District

While causal research is highly valued in some academic circles, many local educational agencies (LEAs) do not apply the same hierarchy to various research methodologies, and some district leaders value qualitative and descriptive research more so than causal research. Even when district leadership values causal research as highly (or more than) other types of research, does the weight of consideration applied to causal research warrant the effort and commitment required to execute a randomized controlled trial (RCT) well? How does the role of school autonomy (within a district) further complicate the feasibility of conducting an RCT? Further, what value do district leaders apply to causal research conducted in other settings? What do district leaders mean when they say "research says"?

With these questions looming in the background, many district leaders and researchers are challenged to do the most rigorous, feasible studies that will answer the most pressing questions. During my exploration of the above questions on this panel, we will explore the consideration and value applied to various types of research. I will share artifacts and feedback from district leaders on qualitative research, descriptive research, causal-ish research, quasi-experimental research, and experimental research conducted within and external to the district.