Wordplay or Paradigm Shift: The Meaning of "Research Impact"

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Abstract

Research impact is increasingly a global issue, yet it is still emerging in the context of U.S. education. This article synthesizes insights on this issue from key thought leaders in various roles in the U.S. education system, including their perspectives on defining, motivating, measuring, and supporting research impact. These insights offer the conceptual framing for this special issue of the *International Journal of Education Policy and Leadership* (*IJEPL*) and highlight several themes and tensions associated with research impact. The call for articles focused on these insights, which are addressed in the pieces that constitute this special issue.

Keywords: Research impact; Knowledge utilization

Introduction

In her piece *Knowledge Utility: From Social Relevance to Knowledge Mobilization*, Judith Naidorf (2014) astutely acknowledges and problematizes a shift in language in the discourse of higher education, referencing terms such as social relevance, innovation, and research impact. She argues:

> At first glance these words may appear neutral, simple and free from conflicts of interest. However, I argue that each of them requires deeper analysis, not only among them, but especially in relation to current scientific and university public policies, as the use of the

concepts have consequences and/or impacts both at the institutional level (higher education institutions) and actor level (scholars, project managers, etc.) (p. 3).

Further, she argues that different language is associated with different expectations and demands for the production and use of research (Naidorf, 2014). Sharing this concern, this introductory commentary—and the special issue that follows—seeks to unpack the language of research impact by offering conceptual and empirical accounts in the context of education. It starts with the emergence of the concept globally. Then, acknowledging its recent emergence in the United States, gathers the perspectives of key leaders in order to identify important considerations as the concept begins to take root.

Global research impact

In this special issue, the field of evidence use is contrasted with contemporary conceptualizations of "research impact," which, in a review of the work to date, draws heavily on the U.K.-developed Research Excellence Framework (REF) carried out by higher education funding organizations. The REF defines research impact as "an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia" (Research England, n.d.). Research impact is concerned with the impact of scholarly work on broader society, reflecting a narrower conceptualization of evidence guiding policy and practice, and a focus on the outcome of use as being observable influence or change. Discussion and debate about research impact have greatly increased internationally. This is reflected in the work of 1) research funders (e.g., the Australian Research Council's Engagement and Impact Consultation (Australian Research Council, n.d.), the REF process in the U.K. (Research Excellence Framework, n.d.); 2) research organizations (e.g., the U.K. Research and Innovation's research councils initiative (UK Research and Innovation, n.d.), Research Impact Canada (Research Impact Canada, n.d.); and 3) professional bodies (e.g., the British Academy (British Academy, n.d.), the American Educational Research Association, (American Educational Research Association, n.d.). As the Organization for Economic Co-operation and Development (OECD, 2011) noted some years ago: "Public research organizations are increasingly aware that they must demonstrate performance, impact and quality to their parent funding bodies, to their private clients and to the international research community" (Barker & Cox, p. 1).

Impact can be understood in multiple ways, which may broadly include *academic* and *societal*. Academic impact includes advancing scientific knowledge, methods, or theory within or across fields of study—which can be thought of as occurring *within* the academy. But societal impact is much broader and transcends the silos of academia. Examples of societal impact include contributions to culture, economy, the environment, policy, social change, law, technological development, and more, and as one might expect, the nature of the impact depends on the nature of the research conducted.

This concern for research impact is reflected in numerous reports and syntheses (Bastow, Dunleavy, & Tinker, 2014; Duryea, Hochman, & Parfitt, 2007; Edwards &

Meagher, 2019; Grant, 2006; Grant, Brutscher, Kirk, Butler, & Wooding, 2010; Greenhalgh, Raftery, Hanney, & Glover; Jones, Castle-Clarke, Manville, Gunashekar, & Grant, 2013; Kostoff & And, 1994; Morton, 2015a; Morton, 2015b; Oancea, 2013; Pederson, Grønvad, & Hvidtfeldt, 2020; Penfield, Baker, Wykes, & Scoble, 2014; Walter, Nutley, & Davies, 2003). In the U.S., however, the conversation around impact is much more recent. There has been significant attention paid to connecting research to practice in education as a result of accountability policy and related legislation, such as the *Education Sciences Reform Act*. But more typically, the discourse has involved "research use" or "evidence-based" frames rather than "research impact." As the language shifts, however, there is a need to surface current thinking about the term *research impact* and its implications, particularly in the U.S., and particularly in education, where there is an opportunity to shape its use and meaning.

Insights from key leaders in the U.S.

What does research impact mean in these contexts? The input of six key thought leaders in U.S. education—leaders of government agencies, funding organizations, institutions of higher education, innovative programs, research-practice partnerships, and professional associations—was sought to answer this question. They were selected because they are positioned to be influential in how others think about research impact. They are not representative of the field, but they are able to provide insight about both the larger issues regarding the role of research in education policy and practice, and the directions future efforts might take. To keep the dialogue as open and forthright as possible, they were assured their comments would be kept anonymous. The questions around which the conversations centered were:

- What does research impact mean to you and your organization?
- Why is research impact important to you and your organization?
- How do you/would you measure or capture research impact?
- How do you/would you support research impact?
- Do you see research impact as different from research use?

The researcher took notes and wrote reflective memos to capture the tensions, new ideas, and nuances in the conversation, as well as comparisons to other responses. The following emergent themes are important to consider when contemplating the relationship between research, practice, and the language of impact.

Is research impact different than research use?

Nearly every respondent believed that *impact* is meaningfully different than *use*, and, interestingly, they often conceptualized the relationship between impact and use in some metaphorical way. One conceptualization, for example, is *research use* as a tent, with research impact a specific form of use. An alternative conceptualization was as a sort of logical chain, where impact was an outcome of research use. That is, for research to have an impact, it must first be used (which in turn has its own precursors). Use, in and of itself, does not necessarily indicate impact, and many other factors influence decisions and may carry more weight as some suggest they should, given the political and democratic nature of education.

Notably, descriptions of research impact seemed to focus on instrumental use: a specific change or decision resulting from the use of research. As such, research impact is generally perceived as narrower than use.

However, one respondent remarked that use and impact might be the same in their context; the people they work with do not appear to distinguish between the two. In that case, impact could be understood in much the same way as research use: conceptual, instrumental, symbolic, and otherwise. One commenter suggested, for example, that impact might look more like "planting a seed." And while they were the only person to articulate this, the boundaries of impact versus use were far blurrier when the respondents were not speaking directly to the differences between the two terms. For example, respondents' language began with "impact" but often drifted to other descriptions, such as "influential," suggesting gradations of impact that felt closer to debates about "use."

The differences between research impact and use articulated in these conversations reflect an important tension. On one hand, participants suggested meaningful differences between the terms—terms that may hold the power to shape research policy, and subsequently the work of researchers in ways that may not be welcome by the community (by, for example, narrowing funding and privileging particular forms of research). On the other hand, the participants revealed a shared desire for research to be useful and to positively shape decisions about education, although often in ways that may extend beyond instrumental impact. The tension between simultaneously wanting impact and being wary of what that means in policy and practice is not easily resolved.

Layers of motivation

Motivation for impact was a point of convergence in the conversations with thought leaders. All the respondents agreed that impact is important, and they offered largely similar reasons: education is important for children and for society, and research can help us improve education opportunities and outcomes. But a closer review of comments yielded important nuances that may be useful for informing the dialogue.

First, while leaders may value research impact for its promise to improve *education*, the reality is that impact was more often talked about in terms of decisions or policies; in other words, impact was defined as shaping the outcome of a *decision*. Across conversations with the six thought leaders, participants described a complex chain implied in impact: Research may influence the outcome of a decision and the decision must be implemented, a process that is heavily influenced by context, and may not lead to the intended outcome in spite of research use.

So, there appears to be a disconnect between what the field wants research impact to mean (improving educational outcomes) and what research impact actually means (influencing decisions). There are indeed models where impact continues throughout the implementation of research and its outcomes, such as in some forms of research-practice partnerships (RPPs). In fact, one contributing thought leader stated that those who enter into RPPs do so specifically to have that kind of impact. Nonetheless, it is important to note the disconnect between claims about why research matters and what it actually matters for.

Further, impact matters to different parts of the education system in different ways. It might matter in the short or long term, for example. As one respondent pointed out, they may need to show impact in order to "keep the lights on," while someone else may be looking over the scope of their career to see if they made a difference in a particular school community. As one respondent put it, there are "layers" of motivation that make research matter. Self-interest is one, though it need not be as reprehensible as it sounds. Employment and organizational sustainability may depend (to varying degrees) on whether or not research has impact, a layer of accountability now widely experienced in the U.K. As the idea of research impact grows roots, it is important to recognize that how we think about impact and how we measure it are critically important in understanding our own accountability.

Additionally, the *what* of research impact matters. At various points in the conversations with respondents, the focus shifted from a *study* to a *body of research* to a *career* (or *researcher*), and more. If research impact matters, both at the level of society and potentially for individuals, a very frank conversation about how to define research is warranted. Some of the leaders expressed outright concern that no single study should ever impact policy or practice, but rather that a longer-term accumulation of knowledge can produce change. In contrast, others spoke of how a particular piece of research could potentially change how a school operated. This tension has critical implications for our expectations—as individuals, organizations, and research communities—of impact.

Lastly, it is important to acknowledge that research impact can be motivated by social justice, a notion not often acknowledged in the larger research use space. As articulated by one of the leaders: Research is about understanding, improving, changing. If people were not concerned with research impact, it could be considered implicit acknowledgement that the status quo is acceptable. In this sense, research impact is motivated by the need for social change and a recognition of education's failure to serve all children.

The question of motivation—why people care about research impact—is complicated. But it was also widely agreed upon by respondents. In this light, it is easy to understand how the idea has crept into the dialogue. However, the range of motivations and potential disconnects noted above matter when it comes to how impact is measured and supported.

Is research impact observable?

The participating thought leaders were asked if research impact is observable. As with the importance of impact, this was a point of convergence: all respondents agreed that research impact is observable and that a number of methods are available to capture it. Convergence, however, ended there, which aligns with recent reviews of impact in the literature (Pederson et al., 2020).

Respondents' perspectives on how impact might be measured varied widely. There is an argument that impact in and of itself implies causality, and that impact can really only be captured through methods suited to causal inference. This, however, is regarded as challenging at best, in no small part because of the absence of a counterfactual: If research was not introduced, would the decision have been differ-

ent? Given the highly situated, accreting nature of decision-making and the over-whelming belief of the importance of research relevance to use, it is hard to imagine estimating a counterfactual except in the rare conditions of, for example, information interventions delivered in an experimental format.

But less rigorous evaluation methods were noted and, accordingly, acknowledged as problematic. References to research or explicit citations in decision-making or policy were suggested, but as one respondent noted, "90 percent of what we use, you will never know we used." In other words, citations may indicate impact, but the absence of them does not mean the opposite, leading to inestimable false negatives.

In spite of repeated concerns, two lines of thinking emerged as promising. First, there appeared to be a natural sequencing of indicators that deserves attention. For research to have impact, it must first be seen, read, or otherwise engaged with; prior to that it must be accessed; and prior to that it must be made accessible. Therefore, although there is a set of highly imperfect measures of impact, there may be indicators that help us move through that initial sequence. For example, publishing in a journal or a magazine or any other location is a far cry from use, but if research is not made available, it cannot be consumed. Further, citation rates or downloads or views—also acknowledged as imperfect—mean that someone is accessing the research. This approach to measurement, however, demands a well thought-out (ideally, well researched) logic model with corresponding indicators at each point, from inputs to outputs to short- and long-term outcomes—what Dan Goldhaber (2018) refers to as deathbed impact. However, none of the participating thought leaders referred to any such tool guiding their thinking or their work.

Measurement of research use and research impact will always be challenging. Measures of impact emerging in the U.K. and elsewhere in response to accountability requirements for impact are widely debated as well (see Buchanan, 2013; Chowdhury, Koya, & Philipson, 2016; Edwards & Meagher, 2019; Grant et al., 2010; Pederson et al., 2020). But ideas about how to do this, albeit imperfectly, abound.

Making impact happen

A number of strategies and conditions were woven through the conversations with thought leaders, many of which prompted thinking in different and more nuanced ways—beyond the barriers and facilitators long documented in the research use literature. The discussion below starts from the premise that if we believe research impact is important (and all participants did, to varying degrees and for various reasons), then there must be efforts in place to support it. This was true in some places and less so in others. For example, the head of one federal funding agency articulated a three-pronged approach to helping the research it funds to have impact, while another admitted that the higher education institution they work for has not quite figured it out in the context of a traditional academic rewards system (not for lack of trying, they noted). Conversations about conditions highlighted five broad ways of thinking: relevance, objectivity, rewards, capacity building, and accessibility.

Relevance. The relevance of research to the problems decision-makers face emerged in a multitude of ways: through political salience, content focus, the source, and directionality. One respondent recalled a framework suggesting the likelihood

of research impact was contingent on a combination of political salience and uncertainty, noting relevance has a political element, reminiscent of Kingdon's policy windows (Kingdon & Stano, 1984). The head of one state education agency's (SEA) research and evaluation units articulated that research has to "scratch the current itch" to be helpful, denoting a content relevance, and it exerts significant effort curating research that could inform current department initiatives. It might also produce research evidence directly. The idea of producing research to inform a specific decision, often in response to a request for it, is a third way of ensuring relevance. This happens in state and local education agencies (SEAs and LEAs), but also in programs that embed researchers and data scientists in agencies and in RPPs. As one respondent explained, it almost *guarantees* impact. The fourth version of relevance raises the issue of directionality in connections between research and practice. Questions driven from knowledge about policy and practice (practice to research, or P to R) increase the likelihood of relevance, and as one participant put it, practitioners and policymakers define the problems for themselves, often in ways that are not attractive to researchers (are "unsexy," as the participant stated). This framing of relevance begs the question of whether dominant conceptualizations of research informing practice are misguided, or at least capture only half of the equation. It raises the question of whether a P-R-P framework should guide research impact.

Objectivity. Related to relevance, the characterization of research as "objective" was common. This includes scholars seeking to be viewed as objective, neutral sources of information for policymakers, as well as funders seeking to ensure they are not perceived as promoting an agenda. The assumption of research or researcher neutrality was strong in some conversations, while others implied that ideology can be a driver of research and that research can (appropriately or otherwise) be invoked for the justification of policy choices, requiring users to be critical, if not skeptical, in their engagement with research. Thus, conversations revealed a tension between being able to *trust* research and/or researchers and the need to be *critical*, a tension with important implications for relationships among research, policy, and practice.

Rewards. Incentivizing research impact also arose in multiple conversations, most often in the form of recognizing that traditional academic rewards systems do not explicitly value research impact beyond the academy. In promotion and tenure processes, impact is often guided by metrics such as citations and related indices, which, as noted above, may be at least partially useful in understanding impact more broadly. But in the absence of a more explicit recognition of impact, higher education incentives drive article production and related behaviors. An alternative incentive is funding, which is often necessary to sustain research agendas and careers but is also frequently recognized as important for career advancement (including promotion and tenure decisions in higher education). Funding, therefore, could be a lever for increasing impact. One of the explicit strategies identified by the leader of a federal funding agency included setting a funding agenda on a) issues of practical and policy relevance, and b) ensuring that the plan included dissemination efforts likely to promote impact.

Capacity building. The discussion of rewards, however, was generally focused on incentives for researchers. There was no mention of rewarding policymakers or practitioners for making decisions based on research. In contrast, the idea of building

capacity for both researchers and decision-makers emerged at multiple points. The respondent from an SEA, for example, has a direct approach to training district and school leaders as well as SEA staff on "critically consuming" research, which in turn, increases the opportunity for research impact. Another respondent, a policy researcher, acknowledged that through their teaching and mentorship, they may be shaping the next generation of policymakers and practitioners, and that their availability and accessibility can help create conditions for greater research impact in the future. Other efforts to build capacity among researchers engage with practitioners and policymakers in the hopes of increasing research relevance and building the skills to span research/practice boundaries in their future roles.

Visibility and accessibility. Visibility and accessibility emerged as related themes in conversations. Visibility relates to both the research and the message about the value of research impact. The participating dean highlighted the bully pulpit as a tool to reinforce their institution's commitment to research impact, signaling the importance of leadership in advancing a culture of research impact. Other efforts mentioned above, such as the inclusion of particular dissemination requirements for funders and programs that embed researchers in policy and practice environments, also send strong signals about what these institutions value, and they may ultimately elevate the visibility of research impact in the education ecosystem.

An alternative perspective on visibility is more closely tied to accessibility. From this perspective, there is concern regarding the extent to which the research and researcher are visible or accessible to decision-makers, as well as the extent to which the relevant problem and the decision-makers are visible or accessible to the researcher. As noted above, research accessibility is among the precursors for research impact. If the relevant research never reaches the decision-maker's desk, it cannot be part of their decision-making. This means that research and researchers themselves, since there is strong evidence suggesting that research use is about relationships (e.g., Backer, Liberman, & Kuehnel, 1986; Coburn & Stein, 2010; Cousins & Simon, 1996; Honig & Venkateswaran, 2012; Huberman, 1990; Landry, Amara, & Lamari, 2001; Lavis, Robertson, Woodside, McLeod, & Abelson, 2003), must be both visible and accessible. One researcher seeks out opportunities to contribute to organizations such as National Public Radio, not simply to make people aware of the research but to establish himself and his work as trustworthy and accessible. There were no mentions, however, of strategies to make problems or decision-makers more visible or accessible to researchers; all the examples provided by respondents involve researchers reaching out or embedding themselves in policy or practice. This reinforces the need to address directionality in the ecosystem and suggests a need to create supports or opportunities at scale to make the needs of policymakers and practitioners more visible.

The bigger picture

These themes highlight the complexity of research impact, from language to measurement to supports. In many ways they reflect the tensions experienced by scholars in countries where research impact is already part of the discourse, and in other ways they reflect the diffuse perspectives that might be expected from a context in

which the idea is merely emergent. They offer insight into how the concept might be understood but also remind us of the larger contextual issues in which this work is situated.

Emphasis on ecosystem. Evident throughout the conversations is the complexity of the research-policy and research-practice ecosystem. From the production of research to the context of implementation, a multitude of actors and institutions shape relationships between those communities, and, subsequently, the potential for research to have impact. Conceptualizations of impact, motivations for seeking impact, and approaches to measurement seem to vary by role in that ecosystem. And, of course, supporting conditions are needed across that ecosystem, not merely within research, policy, or practice communities. If, as some participating leaders suggested, research impact is valued across the system, then it is critical to understand how all of researchers' and practitioners' work is intertwined, to reflect on those roles, to develop shared understandings and common goals across communities, and to focus on aligning systems to achieve those goals.

Comparison to other contexts. The conversation about research impact in the U.S. is clearly still emerging; the current understanding of research impact is much closer to "use" than definitions taken up in assessment-driven systems (e.g., in the U.K.). In spite of research impact and research use being conceptualized as distinct, albeit in different ways, participating thought leaders used the terms almost interchangeably (with some important exceptions). This may mean that in spite of new language, there is less of a shift in thinking about the relationship between research and policy or practice than imagined. It may also mean that there is a need for greater dialogue among stakeholders about the language they use and what it means for collective and individual work, and that there is still an opportunity to think carefully about the discourse, measures, and purposes surrounding "research impact."

Accountability for impact. Relatedly, there is little formal *Accountability* in the U.S. education system for impact, but some degree of less formal *accountability*. Capital A Accountability refers to high-stakes scenarios such as institutional funding and employment, whereas lowercase a accountability refers to low-stakes instances such as self-worth. Research impact in the U.K., and increasingly elsewhere, is part of a larger Accountability framework for the research enterprise, though there was very little mention of higher-stakes decisions based on impact in the conversations with thought leaders. Most mentions were about lower-stakes decisions: funding particular projects, views about one's own contribution to the field, and a larger moral obligation to future generations. The distinction is notable. As has been dually noted here in the U.S., education Accountability has profound effects on how organizations operate. An Accountability framework featuring research impact would demand notably different metrics and supports than those described in the conversations referred to here, which were acknowledged as problematic and inadequate. This raises the possibility that a shift in language from research use to research impact reflects a shift in accountability from little a to big A. Absent is a much broader dialogue, and significant alignment throughout the ecosystem, this may be concerning.

Measurement matters. Measurement and observability are equally problematic here in the U.S. and in contexts where impact is part of larger Accountability policies.

As many scholars have noted (see Federation for the Humanities and Social Sciences, 2014; Grant et al., 2010; Pederson et al., 2020; Penfield et al., 2014), the idea of measuring and observing research impact is complex and varies across disciplines. Often the most feasible and simple metrics are least adequate to the task, and true impact is likely to demand significant time and expense. In this sense, disciplinary contexts are similar. In light of the caution about Accountability above, the inadequacy of measures may ultimately be consequential, as "what gets measured gets done." A natural implication could be the narrowing of the kind of research that is funded and that "counts" for promotion and tenure or other rewards, and that is ultimately available for policy and practice. In other words, this may mean the *commodification of research* (Radder, 2010). Under the guise of impact and relevance, a narrowing of the field would directly contradict the complexity of problems facing the educational system and limit innovation in both the research and practice spaces.

Reconsidering directionality. Imbalances in directionality persist in both research and practice spaces. The idea of research impact necessarily entails policymakers or practitioners using research to make decisions, but it also relies on assumptions of accessibility and relevance that are problematic and empirically questionable. In the conversations with thought leaders, the importance of the practice-to-research pipeline of ideas and needs was mentioned, but little attention was paid to how two-way interactions can be improved. This is often absent from the dialogue, and it is also absent from the dominant research impact frameworks in the U.K. Though research impact itself implies directionality, the supporting mechanisms demand two-way channels.

The path ahead: Contributions of this special issue

Given the increasing global attention paid to research impact, whether established or emergent, it is important to examine the concept and its applications in the context of education. The call for and selection of articles for this special issue was informed by both prior literature and the tensions that surfaced in the exploratory work presented above. The use of research evidence is widely recognized as important to the improvement of the educational system, and to improving opportunities and outcomes for students, families, and communities. However, the idea of "impact" remains opaque and controversial. The lessons described above suggest that impact is one way of thinking about use, whether consumed within use or an alternative form of use, and that impact might be defined as changing the outcome of a decision. It is hard, however, to document cases of research impact: to show evidence that it happened or how it happened, which David Pederson, Jonas Grønvad, and Rolf Hvidtfeldt (2020) directly acknowledge. The articles selected for publication in this issue attend to that gap, providing conceptual and empirical examinations of research impact that describe 1) what it means for research to have impact, 2) the research that is intended to have impact, 3) how research impact is operationalized and observed, and 4) what conditions contributed to impact (or a lack thereof). In the selection and publication of these articles, we hope to advance the dialogue about research impact and create an opportunity to proactively inform policies and practices surrounding research impact in the context of education, and in doing so, im-

prove the role of research in strengthening educational opportunities and outcomes in the years to come.

Acknowledgment

Website

Center for Research Use in Education, www.research4schools.org

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