Working Paper

Learning More About How Research-Based Knowledge Gets Used

Guidance in the Development of New Empirical Research

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Since 1936, the William T. Grant Foundation has been committed to furthering the understanding of human behavior through research. Today, the Foundation supports research to understand and improve the settings of youth ages 8 to 25 in the United States. We are interested in studies that strengthen our understanding of how settings work, how they affect youth development, and how they can be improved. We also fund studies that strengthen our understanding of how and under what conditions research is used to influence policies and practices that affect youth. Important settings include schools, youth-serving organizations, neighborhoods, families, and peer groups.

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About the Authors

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Sources underpinning this paper

In writing this paper, the authors draw on a wide range of reviews of research use processes (e.g., Bradley et al., 2005; Dopson & Fitzgerald, 2005; Estabrooks et al., 2003; Greenhalgh et al., 2004; Hemsley-Brown & Sharp, 2003; Innvaer et al., 2002; Lemieux-Charles & Champagne, 2004) and in particular a recent summation of the literature by the present authors (Nutley et al., 2007). This latter work represents the distillation and integration of the work undertaken by the Research Unit for Research Utilisation (RURU) since 2001 (www.ruru.ac.uk). RURU is a unique multi-disciplinary resource devoted to documenting and synthesizing the diverse strands of conceptual, empirical, and practical knowledge about the use of research. RURU's staff have engaged with a wide range of stakeholders from academic, policy, and practitioner communities, as well as others interested in research use, such as research funders, research brokers, and charitable organizations. RURU's work draws on studies of research use in four settings: health care, social welfare, education, and criminal justice. In this paper, they use evidence from beyond the youth policy and practice field to inform developments in that field.

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FOREWORD

The William T. Grant Foundation commissioned this paper to further our work in supporting high-quality studies on the use of research evidence in policy and practice affecting youth ages 8 to 25 in the United States. The authors of this paper, Sandra Nutley and Huw Davies, have done influential writing in this field, most notably the book *Using Evidence: How research can inform public services*. We asked them to write a paper that would inform research on this topic in the U.S. Although their previous work has been focused on the United Kingdom, we believe that there are useful similarities in the way research is used in the U.S. and the U.K.

The Foundation has a long-standing interest in supporting research that can inform policy and practice affecting youth, but we recognize there are various barriers to the use of research evidence. Researchers, for example, express frustration that policymakers and practitioners do not use (or even misuse) research findings. Policymakers and practitioners express frustration that research is not relevant to their work or it is not readily accessible or easily understood. We believe that building a stronger understanding of when, how, and under what conditions research evidence is used in policy and practice is a worthwhile research endeavor. Ultimately, we hope that strengthening this understanding can improve our efforts to promote the production of more useful research evidence and support policymakers' and practitioners' use of it to improve the lives of youth.

In this paper, Davies and Nutley provide a primer for those unfamiliar with prior work and conceptual frameworks for understanding the use of research in policy and practice. They critique the over-emphasis on a rational, linear model of research use that focuses on the instrumental use of research by an individual decision-maker, who begins with a policy or practice question, goes searching for information, appraises and weighs that information, and then applies it to a decision. They argue for better understanding of what Carol Weiss termed the conceptual use or enlightenment function of research. In this model, research broadens or challenges people's understanding of issues and potential remedies. Davies and Nutley also call for increased study of the social processes and social contexts involved in research use. How is research diffused through policy networks? How do policymakers and practitioners come to interpret research through their interactions with colleagues, advocates, and other experts? How does research become embedded in organizations and systems? How is use of research influenced by local contexts? They tackle these and other questions throughout this working paper.

Six scholars reviewed this paper, and we thank them for their time and insights. At the Foundation, Program Officer Vivian Tseng oversaw this project and Communications Associate Krishna F. Knabe provided editorial assistance.

INTRODUCTION

High-quality research has the potential to improve policy and practice for youth, yet often it does not. Understanding more about when, how, and under what conditions research impacts youth policy and practice will help researchers and funders better direct their research efforts and more effectively support the use of research-based knowledge. This working paper examines the various ways new empirical work on research use can be developed to address our lack of knowledge in this area.

The paper is primarily directed at researchers who are interested in learning more about how research-based knowledge gets used and making a contribution to this field. Our goal is to introduce, in an accessible way, the challenges and opportunities of studying research-based knowledge use, with a particular emphasis on policy and practice settings relevant to youth. While potential researchers are our main audience, we expect that the paper will also provide insight to research funders, those using the findings from research impact studies, and anyone interested in understanding how and when research-based knowledge influences policy and practice.

Defining our terms

Clarification of terms is necessary for those studying research use and impact. *Research, evidence,* and *knowledge* are sometimes used interchangeably, yet the relationships between them are complex, contested, and fluid.

We define *research* as a process (explicit, systematic, and open to scrutiny), the outputs of which are *research findings*. Research findings do not speak for themselves—they must be collated, summarized, and synthesized, and then presented in ways that make them acceptable and informative. When these findings are used in support of an argument or position, they are being treated as *evidence*. Any particular set of research findings is simply that: outputs from research; these same set of findings might be accorded greater significance by a stakeholder and thus be labeled *evidence*.

Research-based knowledge includes research findings, evidence, and also theoretical and empirical insights. The use of research-based knowledge is not simply the dissemination or knowledge transfer of pre-packaged research findings to passive and accepting user audiences. There is a transformation process that happens alongside any translation and transfer.

Knowledge (and therefore *knowledge production*) includes research-based knowledge but also encompasses other ways of knowing (experiential and tacit, as well as local situational awareness). While we think that stakeholders should pay particular attention to research findings, we do not want to characterize findings as the only source of legitimate knowledge. Instead, we strive to see research findings in the context of other more situated and experiential ways of knowing.

The attaching of labels such as *evidence* or *research* to particular types of knowledge are political acts. Using such labels means that problems become defined and visible by those able to assert such labeling, and solutions are then proposed that advance the interests of some at the expense of others. Debates about what counts as evidence or research are not always rational or technical, but rather involve a complex deployment of technical expertise, positional power, and rhetorical effort. This suggests that there are no easy or value-free ways by which research can be defined separately from the context of its use.

This paper is concerned with the empirical study of the *use and impact of research*, defined as how and where research-based knowledge gets used by policymakers and practitioners and the consequences (i.e., impacts) of that use. Researchers are used to thinking about impact in terms of positive outcomes for specific groups (in this case, youth) delivered by interventions, programs, or services. But we can also think about research itself as having impacts; research-based knowledge may influence or even shape the services delivered to youth. These impacts are often indirect and long-term and can be difficult to track. While the impacts of research-based knowledge can be very important, they can also be limited or absent, signaling missed opportunities for benefit.

Tracing the direct impacts of research-based knowledge on important outcomes for youth is not easy. Instead, studies of knowledge use generally focus on assessing its impacts on a range of intermediate variables that are linked to those important outcomes. For example, assessments may focus on the influence of knowledge use on patterns of service delivery, without necessarily examining the full impacts of these service patterns on youth outcomes. We want to understand the connections of these processes, influences, and impacts—through time and through intermediary variables.

Learning more about the use and impact of research-based knowledge

The past decade has seen growing interest in understanding the spread, use, and influence of research-based knowledge in non-academic contexts. There are many drivers of this growth, but prime among these are:

- Political imperatives to move beyond ideology and experiential knowledge to pragmatic considerations of evidence and "what works," not just in policy environments, but also in service delivery organizations and as part of wider public discourse;
- Recognition that research-based knowledge often has little immediate impact (although paradoxically the longer-term influence and impact of this knowledge can be under-recognized); and
- The need for research advocates, funding bodies, research providers, and others to make the case for the resources directed toward

research, together with demands for greater rigor in the design and direction of research funding strategies.

As these drivers bring more attention to the use of research-based knowledge, those in the social research field—producers, funders, and users—are increasingly aware of the limitations of simple models (descriptive or prescriptive) of its use and impact. A significant body of work exploring the production of knowledge through research and its subsequent use in policy, service, and practice contexts has demonstrated the complex and contingent nature of these processes (e.g., Nutley et al., 2007; Dopson & Fitzgerald, 2005; Lemieux-Charles & Champagne, 2004). There are concerns about the narrowness of many existing assessments of the influence of social research, such as bibliometrics and citation counts, individual case studies, and simple surveys of potential research users. There is a need therefore for more sophisticated studies of the use and impact of research-based knowledge that take account of contemporary understandings about how research-based knowledge flows and interacts in complex social systems.

Who wants data on research impact, and why?

The data that come from assessing the use and impact of research-based knowledge can be put to many uses by a wide variety of policymakers and practitioners. An understanding of these potential applications is vital as we design new avenues of investigation.

Different stakeholders (government agencies, funders, research intermediaries, research producers, user communities, etc.) may want information on use and impacts for divergent purposes, including some or all of the following:

- *Addressing accountability.* Research can provide an account of the activities, interactions, and achievements of the unit being studied (such as a funding agency or research program).
- *Assuring value for money.* Researchers can demonstrate that the benefits arising from research are commensurate with its cost.
- *Setting priorities.* Stakeholders can help to focus and direct future research effort in content and design.
- *Assisting learning.* They may also want to develop a better understanding of the impact process in order to enhance future impacts.
- *Improving outcomes.* Ultimately, the goal of most stakeholders is improving outcomes for youth through more effective development of policies, programs, and services.

Each of these purposes is likely to entail different impact assessment strategies, and so it is important to ensure clarity of purpose from the outset—a consideration of these purposes should inform choices about how information on research-based knowledge use and impact is conceptualized,

collected, and presented. One crucial distinction is between assessments that are summative in intent and those that are formative. *Summative work* seeks to develop judgments on the nature and value of any impacts achieved, such as estimating the cost-effectiveness of a research program. In contrast, *formative work* is more concerned with providing *knowledge for learning,* primarily knowledge about how to improve research use processes. Insights about mechanisms and their potential application are the goal of formative work, while summative assessments are concerned with impact.

Summative data have the potential to shape strategic decision-making about what research is funded and how research findings are handled. The potentially political nature of research impact data needs to be acknowledged: such data have the capacity to advance the interests of some groups at the expense of others. While there may be grounds for pursuing summative assessments of research impact, the complexity, ambiguity, unpredictability, and long time frames before impact suggest that such an approach is not optimal. This paper is therefore focused on helping researchers develop studies for formative rather than summative purposes.

Outline of the paper

The paper is structured into four main sections:

- First, we cover some *Basic Considerations* on the domain of study: the stakeholders of interest; the interrelationships between research, evidence, and knowledge; the different ways research is used; and research use processes. Within this section we also articulate some of the conceptual frameworks that describe the relationships between research and its use and impact.
- Second, we set out *Three Key Approaches* to assessing research impact: forward tracking, understanding research use in user communities, and evaluating initiatives aimed at increasing research use.
- Third, we lay out some *Key Methodological Issues*.
- Finally, we set out an *Emerging Research Agenda* to stimulate new thinking in this field of study.

Throughout the text, we pose a number of reflective questions, consideration of which can aid in the design of better structured and more carefully thought-out studies. Some of these questions are directed at those commissioning new research, while others concern the design and/or interpretation of new research. Taken collectively, they draw attention to many of the fundamental avenues for new work in this area.

BASIC CONSIDERATIONS

We begin by elaborating a view of research use processes drawn from extensive inductive study of what happens when knowledge use is tracked in complex social systems. Such study has shown the limitations of prevalent models of research use that suggest rational, linear processes of dissemination and knowledge transfer. Instead, we suggest a more complicated view of what counts as knowledge, and characterize knowledge movement as uncertain, iterative, contingent, and highly social. As we work through this understanding of research use, some initial questions are posed to stimulate thinking about design issues for new studies.

The settings and stakeholders of interest

Studies of research use and impact may be confined to specific workplace environments (e.g., professional front-line practice or high-level policymaking) or take a broader view as to how research-based knowledge becomes part of wider public discourse. Therefore, in developing new work, we must identify the key stakeholders. In line with the Foundation's interests, we are interested in a range of policymakers and practitioners including, but not limited to: school district administrators; agency leaders; organizational decision-makers; and federal, state and local policymakers and policy implementers. We are also interested in intermediaries who translate and disseminate research evidence and who broker relationships between researchers, policymakers, and practitioners. We also believe front-line workers, parents, and other adults in the community are critical to youth development, and their research use can also be studied. However, we are particularly interested in those practitioners whose roles or responsibilities make them major players in influencing how and when research evidence gets used by those who interact directly with youth.

The key stakeholders (including potential research users) are not always readily identifiable. Researchers and research funders have sometimes "succumbed to the temptation of constructing and then believing in users of their own making" (Shove & Rip, 2000). Actual and potential users may not map so readily to those identified a priori by research teams or research funders. This challenges those who study research impacts to think more creatively about how such user communities can be identified and what other stakeholders they interact with as they seek and accumulate knowledge.

Previous studies have told us that the characteristics of these stakeholders matter in shaping their ability to access and make use of research-based knowledge (e.g., Estabrooks, 2003; Rickinson, 2005). However, studies of research use have often taken uncritical approaches to assessing that use, relying on surveys and self-reports. An important message from contemporary understandings of research use is that more sophisticated examinations of knowledge engagement and knowledge interaction practices are necessary. We need to understand more about the structures, processes,

and cultures within which individuals are embedded in order to understand their engagement with research-based knowledge.

Work to date has often focused on the individual, with a comparative neglect of study of the ways in which research findings are embedded into an organization through policies, procedures, tools, and benchmarks. Research may be used without a direct awareness from the user, and it is important that new studies of research use are able to capture wider organizational and system impacts.

Taken together, these observations suggest some initial questions on the setting and scope of future work.

- What settings for potential research use should be examined? Who are the actual and potential research users? How can we track research use through unexpected avenues of diffusion?
- Who are the other important stakeholders within and outside the system with whom research users interact in search of research-based knowledge?
- What are the implications of casting the net close or wide when assessing potential research use processes and wider knowledge engagement?
- What does research use look like at the individual, organizational, and system levels?

Research, evidence, and knowledge

Our primary interest is in the influence and impact of the theories and findings from rigorous, robust, empirical research. However, research cannot sit in isolation, so we need to understand how research-based knowledge interacts with other forms of knowledge, specifically practitioner expertise, an awareness of local contextual constraints, and systems data. Tracking research use requires a complex understanding of such knowledge interaction.

Our emphasis on empirical research matters because such research can be contentious, may be reliant on controversial theories, draws on multiple and sometimes disputed methods, and often leads to contestable and ambiguous findings. In addition, multiple studies can compete and diverge rather than offer clear conclusions. The complex and contested nature of research poses particular challenges as we try to interpret research findings as a type of knowledge.

Evidence-based policy and practice has often been thought of as mobilizing research findings in the areas of efficacy or cost-effectiveness—that is, addressing the “what works?” agenda. However, our understanding of the type of social research we should be considering is much broader. It covers a basic understanding of societal structures and the nature of social problems, as well as their sources and interrelationships. It also relates to better

understanding about social program implementation, client experience of those programs, and the sources and causes of implementation failure. It is important that we broaden our view of research from one that sees it as merely producing *instrumental* knowledge (knowledge that seeks to instruct on appropriate courses of action) to one that sees that research can also influence *conceptual thinking and problem framing* by suggesting new theories and models from which to interpret behavior and base practice.

The expansiveness of our characterization of social research has a consequence. It could be interpreted as being inclusive of other systematic approaches to inquiry that might not usually be classified as research: for example, the reports and evidence created through systematic inquiries by regulatory authorities or well-managed and systematic stakeholder consultations. Individuals within the system may also have access to analyses of local data (such as school test scores) whose relevancy strengthen their role as evidence. Such breadth poses significant challenges to those aiming to assess research use processes: they must be clear about the types of research-based knowledge of interest and the ways in which these integrate with other sources of knowledge.

These discussions complicate simple notions of research and research use and demand of future researchers a more critical and nuanced engagement with the nature of the material (i.e., research, evidence, and knowledge) for which proof of use and impact is sought. They also point to future avenues for new study by exploring how knowledge and discourse develop. None of this suggests that there are easy answers to distinctions between research, evidence, and knowledge—instead, it asks researchers to be clear about what is being tracked and suggests that wider perspectives may be more useful in future studies. The following questions consider some of those wider perspectives.

- Are we interested primarily in research *outputs* (what is produced by the research), research use *processes* (how research outputs are used, including knowledge integration), research *impacts per se* (the initial consequences of research use in various decision arenas), or end-point *outcomes* (the subsequent consequences of changes in decision arenas for youth outcomes)?
- Assessing research flows and impacts is complicated because knowledge used in decision-making is often synthesized, integrated with other research, knowledge, or expert opinion, and digested. How will these challenges be addressed?
- In such complex circumstances, how can we disentangle the *specific impacts* of research, pay attention to *non-linearity* of effects, address issues of *attribution*, and identify the *addition* of any research contribution?

Types of research use

Researchers exploring the use of research need to know what they are looking for. There are many and diverse ways in which research use has been interpreted, theoretically, and in previous empirical work. We can think of research use in the following distinct ways:

- *Research under-use, overuse and misuse.* Many studies of research use characterize it using these terms, with most of the emphasis being given to under-use. Over-use, often construed as misuse, is more problematic as it represents a value judgment. For this reason, some studying research use processes have become reluctant to impose such value judgments, preferring a more neutral documentation of *all* the ways in which research-based knowledge features as part of discourse and action.
- *Strategic, political, and tactical uses of research.* Sometimes construed as aspects of misuse, research-based knowledge may be used to support pre-existing positions, undermine the positions of others, or legitimate already defined courses of action. Here, research-based knowledge is not being used for elucidation, but instead becomes a tactical tool in political conflict. Again, while we may harbor reservations about such uses for research, they nevertheless represent some of the important ways that research influences discourse and debate.
- *Instrumental and conceptual uses of research.* Much of the work exploring research use has focused on instrumentalist evidence that directs specific actions, especially research on interventions and their impacts. However, important decision-making is often more diffuse and characterized by non-decisional processes and the progressive establishment of new routines. In these instances, research-based knowledge provides a background of theory and data that slowly engages local discourse (Weiss, 1980). Research-based knowledge may also be absorbed and internalized into professional tacit knowledge as it coalesces with many other sources of knowledge (e.g., experience, anecdote, received wisdom, lay knowledge, etc.). In doing so, it may leave few signs of its passage, role, or impact. Research-based knowledge can contribute not just to decisional choices, but also to the formation of values, the creation of new understandings and possibilities, and to the quality of public and professional discourse and debate.
- *Process benefits from engagement with research.* It is not just through findings that research can have influence. Engaging policymakers and practitioners with the business of research knowledge production may begin to change ways of thinking about the nature of social problems, their amenability to managed change, and the likely status of different sources of knowledge. These process impacts may be an important by-product to which studies of research impact should be alert.
- *Individual research use and system-embedded uses.* As alluded to earlier, studies of research use have too often focused on individuals

> and their use of research-based knowledge. Knowledge is captured and applied in organizations and systems through many processes other than individual decision-making. Policies, procedures, standard operating practices, guidelines, assessment tools, and other forms of routine practice all represent the embedding of knowledge. When these systematized applications are founded on research-based knowledge they will be an important target for research use and impact studies.

Describing the different ways in which research is used contains no normative assumptions; instead it offers an understanding of the complexity of research use and suggests areas for consideration in further studies. Researchers should determine the type of research use that is of most interest (e.g., instrumental or conceptual, immediate or long-term, tactical or substantive), while guarding against a tendency toward emphasizing use that is most instrumental, direct, and readily identifiable. We also need to understand how to identify and examine *all* types of research use, both expected and unexpected, including unintended and/or dysfunctional use, such as the *misuse* of research. Researchers should also consider tracking both the harm and benefits arising from research use. Finally, we want to urge potential researchers to try to assess tacit uses of research, as well as the use of research as it becomes embedded in organizational routines.

Research use as a social process

Contemporary understandings of research use suggest that assuming research can be neatly packaged and passed to those who need it is naive. Interactive and social models of the research use process offer the most promising insights (Nutley et al., 2007; Nutley & Davies, 2008). Terms such as *knowledge exchange, knowledge interaction,* and *knowledge integration* more appropriately capture the complex, social, and interactive processes through which new and contextualized understandings are created. Recent thinking suggests that we need to move beyond individualized framings of the research use process (i.e., how do individuals access, make sense of, and apply research thinking and research findings?) to a focus on research use within organizations and systems. This means asking not just how practitioner organizational arrangements can best support individual uses of research-based knowledge, but also how research-based knowledge can become properly embedded in organizational systems, practices, and cultures.

It is this social and situated view of research use that should be brought to the fore in the development of new studies. To this end, we outline various conceptual frameworks to help explain the relationship(s) between research and action.

Conceptual frameworks

Several conceptual frameworks of how research-based knowledge is used have been developed and applied to structure information gathering and

data interpretation in research use studies. These various frameworks can be used to support any of the three broad approaches to assessing use we outline later in this paper.

Some of the established frameworks focus on the micro-processes of research use. This includes those that have described different stages of research communication and use. One much cited example was developed by Knott and Wildavsky (1980) and elaborated by, among others, Landry et al. (2001a, 2001b). It characterizes six stages through which research can have increasing impact: transmission of research, cognition of findings, reference made to significant studies, efforts made to operationalize findings, influence seen on decisions, and application of research to policy and/or practice.

Staged models such as this can over-emphasize the instrumental uses of research at the expense of conceptual effects. They also have an implicit over-reliance on linear assumptions (e.g., they tend to suggest that all stages will be traversed in sequence, that the stages are equally important and cumulative, and that similar efforts are required to move across stages). In contrast, many empirical studies have shown that only rarely will research impacts be direct, instrumental, and clearly identifiable.

In response to these challenges, some models have focused attention on the nature of researcher-user interaction. Lavis et al. (2003), for example, characterize three basic types of researcher-user interaction: *producer-push*, *user-pull*, and *exchange*. The first of these emphasizes the active role taken by researchers in communicating the messages from their research; the second highlights the need for potential research users to create an environment whereby research findings are actively valued, sought, and used; and the third outlines models of interaction between researchers and users that emphasize joint actions in the defining, creation, validation, and use of research-based knowledge. From this taxonomy, Lavis et al. go on to identify where and how research impacts might be sought and measured in each case.

The models outlined above map to, and are extended by, the typology developed first by Weiss (1979), but used extensively by others (e.g., Hanney, 2002; Molas-Gallart et al., 2000). Here, six models of research use are identified, the first three of which largely duplicate *push*, *pull,* and *exchange*. These models encapsulate different types and processes of research use and imply different ways of approaching the impact assessment task.

1. *Classic, knowledge-driven model.* This linear view suggests that research findings may be communicated to impel action.
2. *Problem-solving, policy-driven model.* This second linear view begins with the end-users of research and the problems they face, before tracking back in search of useful findings.

3. *Interactive model.* This process is modeled as a set of non-linear, less predictable interactions between researchers and users, with research impact happening through social processes of sustained interactivity;
4. *Enlightenment model.* This model eschews the notion that research impacts are simple and instrumental. Instead, research impacts are felt through "the gradual sedimentation of insight, theories, concepts and perspective."
5. *Political model.* Research findings are seen as tools in adversarial systems of decision-making.
6. *Tactical model.* Research becomes a resource to be drawn on whenever there is pressure for action on complex public issues and may be used not just to bolster decision-making but also to stall and deflect pressure for action.

An additional way of thinking about research use, which differs from the above in its focus of interest, is proposed by Walter et al. (2004). Their modeling of research use is not concerned with macro policy but instead focuses on the use of research-based knowledge in organizations charged with service delivery. They propose three ways of viewing how research-based knowledge is used, models which were derived inductively from a review of studies of use in social welfare settings.

1. *Evidence-based practitioner model.* This model highlights the role of skilled individual practitioners, who are able to express their knowledge needs in terms of researchable questions, and then search for and appraise the research base to meet these needs.
2. *Embedded model.* In this model, research-based knowledge is distilled and codified before being incorporated into organizational processes, procedures, protocols, and guidelines. In this view, the incorporation of research-based knowledge is a management responsibility, together with the establishment and maintenance of suitable compliance regimes.
3. *Organizational excellence model.* This understanding emphasizes the importance of local strategies of continuous improvement that draw on research-based knowledge and on local experimentation. What matters most here is reflexivity and research mindedness within organizations, together with a willingness to change.

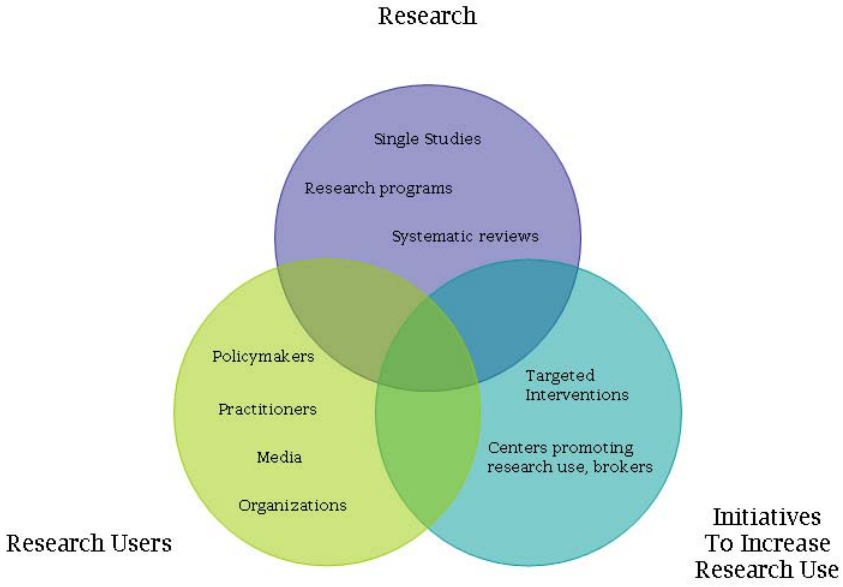
The relevance of Walter et al.'s typology (2004) is that it helpfully categorizes research use environments and suggests the need for a customized approach to impact assessments contingent on the dominant modes of use. For example, in environments characterized by evidence-based practitioners, impact assessments may focus on individual knowledge, skills, and behavior. In contrast, environments in which the embedded model operates require us to look for impacts on organizational processes and routines. Each model emphasizes the unlikeliness of significant research impacts occurring unless substantial organizational initiatives are already in place.

A final consideration in this discussion of conceptual frameworks is the potential to draw on generic models of the policy process (e.g., policy streams and policy network approaches), as well as on broader models of the research-practice relationships and attempts to understand the nature of knowing in practice (e.g., literature on learning, diffusion of innovations, and knowledge management). Exploring research use processes should not be seen as divorced from the rest of social science endeavor, and there is much in this generic literature that can be drawn upon to enable more sophisticated and better theorized empirical study. What follows next is a structuring of how research use studies might be framed, with the identification of three key design framings.

THREE KEY APPROACHES

There are several starting points from which an assessment of research use and impacts can be approached (Figure 1). Our prime interest might be to track forward and focus on how research (e.g., single studies, reviews, or whole programs of work) and their findings make their way into user communities and the impacts that they have once there. Alternatively, we might work back from user communities (e.g., policymakers, service organizations, or service providers), aiming to understand the extent to which their decisions and actions are impacted by research outputs. Given recent efforts to increase research use, we may be concerned with assessing the success of a range of research use, knowledge transfer, or capacity-building initiatives.

Figure 1: Starting points in assessing research use and impacts



These varying ways of approaching the use and impact assessment task require different perspectives and raise different core questions. However, these views are not independent: tracking the impacts of research projects or programs cannot be separated from an understanding of the capacity of users to absorb and utilize research findings. Any assessment of research use among user communities has to pay attention to the availability of useful research findings.

Each of the approaches outlined above poses distinct challenges. Tracking *forward* from research to impact begs important questions of what and where to look, and over what time frame. Tracking *back* from policy decisions or practice behaviors to identify research-based influences challenges us to disaggregate the impacts of multiple influences and research strands. Finally, evaluations of uptake activities may have difficulty identifying causal mechanisms and/or demonstrating the generalizability of the initiatives evaluated. We must therefore understand the relative advantages and disadvantages of tracking forward from research to impacts or back from change to antecedent research. And when weighing the advantages and disadvantages, we should also be mindful of effective strategies that facilitate knowledge transfer and use. These strategies include identifying the key audiences for research use and impact study, and the reasons these audiences may want information assessing research use and impacts, We should also consider whether any use and impact assessment will be primarily for *learning* (in which case examinations of process may need to be emphasized), or if the assessment will be primarily for enabling *judgments* to be made (requiring examinations of output and outcomes to be emphasized). And, will the dominant mode of assessment be *quantitative* or *qualitative,* and what are the implications of this?

These initial questions arise as the issue of exploring research use is structured. Each of the main approaches is discussed in more detail as a means of understanding their relative strengths and weaknesses, and the tasks involved in their operationalization.

Forward tracking from research to impacts

This approach emphasizes looking forward to how the findings from research (e.g., single studies, reviews, or whole programs of work) make their way into user communities and the impacts that they have once there. For any program of research work, we need to understand what use and impacts are desired, expected, or reasonable, and if research impact assessment can be approached in light of these expectations.

Traditionally, the success of social research has been judged in narrow terms, usually by an assessment of peer-reviewed published output. Extensions of this are bibliometric analyses that have assessed the amount of published output, the quality of that output (e.g., by peer esteem or by impact factors of the outlets used), and the extent to which the output has impacted others in the same field (e.g., by citation tracking). A few studies have gone further to track citations wider than academic circles, looking specifically at their use in policy and professional guidance. In general, however, such approaches have told us comparatively little about non-academic impacts.

More recently, attempts have been made to describe and quantify the impacts of research using models that call attention to “return on

investment" or "research payback." These approaches typically identify a number of categories where impacts might be expected from research, such as knowledge production, research capacity-building, or policy or product development (e.g., protocols or assessment tools). Assessments in each of these categories are then derived from multiple data sources, creating either profiles of impact or weighted indices. Such approaches tend toward the summative in tone but can nonetheless generate insights for improvement.

An example of research payback: The returns from arthritis research

This evaluation attempted to improve understanding of how arthritis research funded by the Arthritis Research Campaign (a large charitable funder) is translated from "bench to bedside." It used a payback model to identify and score research impacts in 5 categories, gathering data across 16 case studies. Categories of impact tracked included:

1. Knowledge production (e.g., peer-reviewed papers);
2. Research capacity-building (e.g., postgraduate training and career development);
3. Policy or product development (e.g., input into official guidelines or protocols);
4. Sector benefits (e.g., impacts on specific client groups); and
5. Wider societal benefits (e.g., economic benefits from increased population health or productivity).

Assessments in each of these categories were derived from multiple data sources. The data gathered were then scored using Delphi-type methods, in which panels of relevant experts shared their assessments through repeated rounds of consultation. These data were used to compare profiles of impacts across projects and programs.

Source: Wooding et al., 2004

At an early stage, it is important to be clear about the most appropriate focus for exploring research use and the impact of that use. At one level, exploration could focus on the activities of a funding agency, a research production facility, or even the entire research community in a country. At the level of the research, the assessment may consider the impact of individual projects or programs of work. Given the uncertain, contingent, and "slow-burn" nature of much research impact, it may be unrealistic to expect much from smaller aggregations of research outputs, such as that from single studies or small portfolios of work.

More qualitative and descriptive approaches sometimes adopt a "networks and flows" approach. These models seek to map the networks of researchers and relevant non-academic beneficiaries (i.e., potential research users), before tracing the effects of any interactions and knowledge flows across these networks. Such approaches can yield many insights and support theory-building about how research use is accomplished. They also

represent a hybrid approach to research impact assessment that bridges forward-tracking of the routes research travels and the retrospective assessment of the ingredients that impact decision-making.

Understanding research use in user communities

Instead of tracking research forward, we can instead focus on user communities (e.g., policymakers, service organizations, or service providers), aiming to understand the extent to which their decisions and actions are impacted by research outputs.

Work that begins with user communities usually takes a case-based approach, but employs diverse methods of gathering data. Often these methods consist of surveys of policymakers or practitioners that ask about the use of research-based knowledge. Such study can explore not only what facilitates engagement with and use of research-based knowledge, but can also look at barriers and impeding factors. Much of this work has already been carried out, particularly in health care and education, and the insights available through this approach have largely been discovered. A clear understanding of previous empirical work should be assured before further survey work of this type is undertaken.

An example of literature review of user communities: What do school districts use as evidence?

Currently, "No Child Left Behind" (NCLB) requires that all programs funded under this initiative are underpinned by "evidence" and "scientifically based research" or are otherwise "data-driven." Honig and Coburn explored the extant research literature over almost three decades, showing that evidence use by school districts was complex, significantly political, and intimately concerned with local knowledge.

Source: Honig & Coburn, 2008.

More detailed and sophisticated studies of research users are possible, for example the use of "user panels." These panels consist of individuals who may be expected to draw upon the results of research, and when used iteratively they can provide a useful longitudinal perspective. Such approaches provide a flexibility of investigation that can explore not just specific channels of communication—as would be done in forward tracking methods—but can also identify unexpected channels, interactions, and effects.

In a study of social science impact on non-academic audiences, Molas-Gallart et al. (2000) piloted several approaches to studying the impacts of two large government-funded research projects: a networks and flows model, a user-panel assessment, and tracing post-research activity. User panel members were interviewed several times during the duration of the project and participated in a wrap-up workshop, in order to provide a longitudinal element. This supplied "a tool to trace not only the existing utilization of the

research outputs but also the forms of interaction between researcher and users."

Hanney and colleagues (2002) developed similar user panels work exploring research utilization in health policymaking. They employed document analysis, interviews (building on a stakeholder analysis), and questionnaires with scaling methods as a way of unpacking the role of research-based knowledge in influencing the development of health policy around specific policy themes. Their expectation was that this approach would "produce its own narrative or story of what caused utilization in the particular context"; but they also highlight the need to "structure all such studies around a conceptual framework."

Work with a stronger ethnographic approach has also been used to explore the complexities of research use. This includes work that has conceptualized users as "communities of practice." The importance of this conceptualization lies in the way in which it draws attention to the unpredictable, non-linear, and contingent nature of many research use processes.

Ethnographic study by Gabbay and le May (2004) in two English primary care practices explored how family physicians and practice nurses used evidence in making decisions. The investigators could find no examples of the traditional steps associated with the linear-rational model of evidence-based practice (i.e., question, search, appraise, apply). Instead, they concluded that research application was an indirect and social process:

> "Clinicians rarely accessed and used explicit evidence from research or other sources directly, but relied on 'mindlines'—collectively reinforced, internalized, tacit guidelines. These were informed by brief reading but mainly by their own and their colleagues' experience, their interactions with each other, and with opinion leaders, patients, and pharmaceutical representatives, and other sources of largely tacit knowledge. Mediated by organizational demands and constraints, mindlines were iteratively negotiated with a variety of key stakeholders, often through a range of informal interactions in fluid 'communities of practice,' resulting in socially constructed 'knowledge in practice.'"

Such studies provide rich insights into the creation and use of different types of knowledge, and highlight the uncertain, idiosyncratic, and contextually mediated patterns of research-based knowledge use.

Work that focuses on understanding research use in user communities may, ultimately, be better suited to an unpacking of the complex and highly contextual processes of knowledge creation and use, with a view to understanding how these processes may be better supported. Unambiguous impacts with strong linkages to existing research, while not unknown, are

relatively rare and often highlight the instrumental uses of evaluation evidence, such as the adoption or rejection of specific programs. Impact studies that seek unambiguous linkages, perhaps as a means of legitimizing research spending, can inflate expectations of the importance of research in complex and politicized environments.

Evaluating initiatives aimed at increasing research use

A considerable research base exists that examines the effectiveness of various strategies and interventions for increasing research use and impact in practice settings. Such work may focus on increasing the use of specific research findings (e.g., through guideline implementation or assessment tool creation), examine the role of intermediaries or research translation activities, or encompass the effects of whole centers aimed at increasing research-practice connectivity.

What links all these areas of study is their use of program evaluation strategies including experimental and quasi-experimental, as well as action research, qualitative investigation, and ethnographic work. Extensive guidance already exists for researchers in developing such evaluations of complex interventions (e.g., Chen, 1990; Pawson & Tilley, 1997). Nonetheless, a sophisticated understanding of research use processes as advocated in this paper can also help support well-designed studies.

Such a view also emphasizes the range of questions that can be asked when evaluating new initiatives: Do they work? If so, when do they work? Where do they work? And most importantly, how do they work? These questions highlight the need for strong theories of change to strengthen the design and testing of interventions that can build cumulative knowledge. This is particularly important because many interventions designed to increase research use are multi-faceted in design. Unraveling specific effects will be difficult without prior theorizing as to the likely mechanisms of action.

Finally, drawing attention to the need for specific strategies, interventions, and incentives to support research use alerts us to the importance of assessing research use processes in conducive contexts, (i.e., those environments that give the best chance to research having impact). Even when studies are examining the impacts of local initiatives or contextual factors, there will always be wider contextual aspects that may be more or less conducive (e.g., the nature of the financial or political environment within which research use takes place). Without conducive contexts, we can only uncover limited proof of research use and impact.

KEY METHODOLOGICAL ISSUES

All studies—whichever key approach they take—face a broad range of practical questions during methodological development. We need to decide when research use should be assessed and what time frames are most appropriate given how long it may take for impact to occur. How wide should researchers cast the net in looking for research use, with a complicating factor being that potential research users are not necessarily simply or readily identifiable? Researchers must also balance qualitative descriptions with quantitative assessments, taking account of both subjective and objective judgments. They also need to understand how impacts will be scored or valued within different categories, and how to aggregate across different categories of impact.

A recent review of evaluations of the impact of research on policy identified 17 different methods of data gathering (Boaz et al., 2008). While there is some overlap between several of these, the range of methods demonstrates the need for flexibility and versatility in data gathering approaches. Methods are listed in descending order of their frequency of occurrence:

1. *Case study analysis:* an empirical approach that explores in-depth a project or program, describing and explaining how and why developments of interest have occurred
2. *Semi-structured interviews:* a flexible interview around a framework of themes, with pre-identified key stakeholders
3. *Documentary analysis:* exploration and interpretation of existing documents to elicit quantitative or qualitative findings
4. *Bibliometrics/citation analysis:* a method for quantifying the impact of research by counting the number of outputs and citations and analyzing citation data
5. *Surveys:* a pre-formatted series of questions asked of multiple stakeholders, generating both quantitative and qualitative data
6. *Peer/panel review:* expert scrutiny of projects and programs
7. *Workshop, focus group:* organized discussion with a group, often involving a range of different stakeholders
8. *Literature review:* a synthesis of existing research relevant to the study
9. *Field visit:* a primary research method in which the research team visits in person the site of activity, can include non-participant observation
10. *User evaluations:* participatory method for assessing stakeholder (either users of research or producers of research) satisfaction
11. *Telephone interviews:* usually a semi-structured interview, often used as preliminary means of identifying key stakeholders
12. *Historical tracing:* tracing backward from an outcome to identify contributing factors, using a range of (usually qualitative) data collection tools

13. *Patents/new technologies:* where research may have patentable outcomes, this approach gathers data about the number and nature of patents
14. *Network mapping and analysis:* analysis of the structure of relationships and the consequences for stakeholders' decisions and actions. Mapping can identify multiple links (structure) and surveys or interviews can explore how they are used and valued (agency), can be examined from the perspective of a single individual or a total network
15. *Positive utilization narratives:* a participatory method to identify stakeholder accounts of impact, and the use of secondary analysis to understand who contributed to change and how
16. *Impact Log:* a means of logging real-time direct impacts and use of research (i.e., from informal feedback, field observations)
17. *Tracing post-research activity:* follows the impact of research according to channels of diffusion through networks and post-research activity of researchers

Source: Boaz et al., 2008

Methodological issues

Research use assessments that take a forward-tracking or payback approach must account for the impact of various projects, programs, etc. that may be diverse and idiosyncratic. Case-sampling approaches may provide an uneven or misleading picture. And forward-tracking models—especially those that emphasize payback—can presuppose a degree of linearity and proportionality in moving from identification of research outputs to assessments of impact. Such a view simplifies the complexity of the processes at work. Complex issues of attribution (was the research really the key driver?) and additionality (how does the contribution of the research compare to that of other drivers?) may also be difficult to assess. Forward-tracking approaches can be comparatively neglectful of the context within which research is communicated and acted upon, although previous empirical work has demonstrated the importance of context (e.g. Nutley et al., 2007; Dopson & Fitzgerald, 2005).

We want to pay particular attention to the last issue, regarding the importance of context. Should we judge or value research on its *actual* or on its *potential* impacts, recognizing that in different contexts impacts may vary? Studies should take into account the receptivity of context, not just in terms of the strategies used to increase use but also in terms of the political acceptability of findings or advantages of messages and timing. In making judgments about impacts, studies also need to examine the role played by chance and political windows of opportunity.

Research with a focus on user communities can be more subtle in the effects explored (e.g., non-linearity, complexities of use, etc.) and more able to take account of the contextual issues described above. This research can also be

subject to a similar range of the methodological issues we outlined (sampling, attribution, additionality, etc.). Assessing impact on major policy choices can be difficult as this research is often synthesized; integrated with other research, knowledge, or expert opinion; pre-digested in various ways; and mediated through expert or political intermediaries. Further intricacies can include a lack of clarity about the key decision-makers; rapid turnover of relevant staff; and shifting priorities and the emergence of new, hot-button issues (with consequent confusion as to where research use assessment should be targeted).

Finally, intervention research—research that seeks to assess the impacts of specific research uptake strategies or interventions—faces all the usual difficulties of hypothesis testing research. Most challenging is disentangling causal mechanisms and ensuring a high degree of transferability of any findings. Interventions aimed at increasing research use take place in shifting environments, with a degree of unpredictability surrounding knowledge flows and use. It can be difficult to assess the extent to which any changes seen in research use can be attributed to research engagement strategies since full, controlled study is difficult to achieve. As research use itself is highly contingent on the specifics of context, even when good research impact is encouraged, drawing transferable lessons for other times and places is not easy. Key to addressing these challenges is embedding clearly articulated theoretical models about processes that appropriately account for intervention and context interactions in the research design (Pawson & Tilley, 1997).

There are significant conceptual, methodological, and practical issues that should be addressed while developing insightful work on research use and impact. However, there are also some useful conceptual frameworks that can be employed to make new work more capable of yielding further insights, and we have tried to draw attention to these. Added to this is the cannon of social science, and organizational research in particular, much of which has yet to be adequately mined for insights and application to processes of research use (Greenhalgh et al., 2002). Work on diffusion of innovations, organizational and collective learning, practice-based learning, and knowledge management all have rich potential for further development and application in this field.

EMERGING RESEARCH AGENDA

Having articulated frameworks for understanding research use, we turn to three major areas for further study of research use in policy and practice settings, and within these, a number of specific research themes. We seek to prompt new research that unravels complex research use processes in order to facilitate formative learning.

The main research areas are knowledge source, presentation, and integration; context and connections; and strategies and processes. A discussion of each along with related research themes follows. The structuring of research themes into these three broad areas reflects general models for understanding organizational change (such as Pettigrew and Whip's 1991 "Content, Context, and Process" model for strategy), and the specific development of such models for understanding research use (such as Kitson et al.'s 2008 "Evidence, Context, and Facilitation" model of practice change). These areas do not need to be studied separately: it is the *interplay* between them that gives rise to the dynamism of the system.

Knowledge source, presentation, and integration

Our definition of research and the benefits that can flow from it (encompassing empirical and theoretical knowledge) bring to the fore the importance of understanding processes of knowing in social and organizational contexts.

- *What models of research supply and synthesis might better support knowledge integration by potential research users?* Future work should identify different and more participatory forms of both primary research (e.g., action research, participative enquiry) and research review (e.g., realist synthesis, meta-ethnography). Such approaches pay greater attention to research user interactivity. A literature review addressing this question would provide the basis for new studies that encompass a planned mix of action research and experimental methods.

- *How do different kinds of messaging and messengers affect the use of research knowledge?* Research messages might be couched in a variety of ways—as part of educational initiatives, framed as public health imperatives, or in terms of supporting cost-effectiveness. Study of the various ways of framing and packaging research may help us understand how to ensure saliency and use. As understanding grows, there is potential for randomized comparisons to assess the relative impacts of different message factors and test the underlying theories that have been developed.

- *What is the role of the web in providing access to existing research?* Policymakers and practitioners have much more ready and direct access to archived research-based resources. How is this changing the

flow of knowledge through the system and the types of use that follow (e.g., strategic, political, tactical, etc.)? Descriptive survey work should precede case study work and user panels study.

- *To what extent are policymakers and service managers conducting their own in-house research through the examination of administrative and other sources of local data?* As the distinction between research user and research producer becomes blurred (as when decision makers undertake their own research through web sources or local analysis), what are the implications for the quality of the analysis supporting decisions and the ways in which such analyses are integrated with existing bodies of more formal research-based knowledge? Ethnographic work on knowledge sourcing and integration has the potential to add fresh insights and track fast-moving change.

- *How is new knowledge integrated into current ways of thinking and modes of practice?* Is the acquisition of new knowledge always an active process initiated by practitioners in response to the problems they face? What about cultural absorption of new ideas and the role of "unlearning"? Ethnographic work has the potential to uncover the diverse, uncertain, and complex pathways through which practitioner knowledge changes and the implications of this change for research use in practice settings.

Context and connections

Our previous discussions have emphasized that context is key in understanding research use. Thus, context together with interconnections that foster an interactive approach to research-based knowledge acquisition and use form the second main area for new research.

- *What are the important policy communities at play in youth development work? How are these communities connected, how are they linked to practice-based, researcher, and research intermediary communities?* Work here should consist of descriptive mapping, network analysis (structure and process), and case study-based explorations of how research and knowledge are packaged, processed, transmitted, and transformed.

- *How, where, and under what circumstances do practitioners source new knowledge?* Survey and panel studies, along with careful ethnographic work, can explore social networks, back channels, and the role of chance in promoting research flow.

- *To what extent are policy and practice communities becoming better networked and facilitating freer flows of research-based information across these networks?* A better understanding of policy networks,

policy communities, and advocacy coalitions can help us understand research-based innovation and diffusion flows.

- *What models of research brokerage or intermediary activities have the best potential for fostering research use?* Examining the structures and processes of research brokerage and intermediary activities offer considerable potential for new insights. Exploratory work should be case study-based. Case study design and selection should be informed by a literature review of emerging models of research brokerage and intermediary activities. Case study findings can then feed into experimental work.

- *How can lay people, service users, and others (non-policy, non-professional) contribute more fully to evidence-informed discussions?* Much of the evidence use debate can lead to client experience being sidelined. Taking knowledge integration seriously requires that such experience be considered with other (more formal) sources of knowledge. Systematic understanding of how this can be achieved (and the consequences of doing so) are lacking. Exploratory work should draw on a mixture of literature review and case study methods.

- *How are education and continuing professional development connected to and supportive of knowledge accumulation and integration?* In particular, do prevalent models of continuing education pay sufficient attention to the interactive, iterative, social, and contextual nature of knowledge integration? Work should consist of a careful mix of literature review, survey, and case study methods.

Strategies and processes

Our view that research can have use and impact at multiple levels (e.g., individual, team, organization, and system) suggests that a diversity of models is needed to map the processes and strategies by which research use is accomplished and embedded.

- *To what extent do different models of research use co-exist in different practice settings (e.g., the balance between research-based practitioner approaches, embedded research, and organizational excellence models)?* Studies should examine not just the current balances of approaches but also the potential for shifts in these balances or the development of new hybrids. Such studies should encompass case study and action research methods. It is important to pay proper attention to the potential for a greater degree of organizational embedding of research findings.

- *What knowledge management strategies are in use across the sector?* To what extent do these strategies presuppose a knowledge codification approach, where knowledge is codified and collated,

usually electronically, for future search and use? Or do they adopt personalization and social interaction approaches, in which expertise is passed through engagement and dialogue, shared projects, and work placements? This work should be survey-based and supported by in-depth case studies. As new knowledge management methods are devised, they could be tested prospectively.

- *What models of push, pull, and linkage-exchange are in place? How are these evolving and connecting? What are the challenges of sustainability?* Literature review work on this topic should be supported by new case study-based research that examines aspects of success of current initiatives looking for practices worthy of further investigation. Experimental research may also contribute to the testing of the theories and models uncovered.

- *Emerging from a consideration of all of the above (existing and new knowledge), what strategies aimed at increasing research use and impact have the best suggestive evidence in support of them, and how might such strategies be tested as a means of consolidating the evidence base on supporting research use?* To address this question, literature review work, followed by the development of appropriate metrics and the application of experimental methods are needed.

- *Finally, how can new knowledge of the research-action process be encouraged to impact the future actions of researchers, funders, intermediaries, policy/decision-makers, and practitioners/end users within the youth field?* How can we insure that lessons emerging on effective uptake and use of research are properly applied?

Well-worn themes or novel areas for inquiry?

Not all of the research themes outlined above relate to untilled ground, but work in the field has been uneven. The role of evidence with national policymakers has been relatively well-explored, as have the processes of research use among front-line practitioners. However, there is little detailed work exploring the use of research by mid-level stakeholders in service delivery organizations. And context, while recognized as key, has not been well-conceptualized or incorporated in empirical study.

Existing work has been preoccupied with individuals, their actions in engaging with evidence, their cognitive processing of evidence products, and their subsequent behaviors, especially with decision-making. While clearly important, such a view over-emphasizes a rational-linear and instrumental view of the research use process, and neglects team-, organization-, and system-level embedding of research. Retrospective self-report has been over-used in comparison to real-time and longitudinal observation, suggesting greater scope for richer and more valid methods such as ethnography and ecological momentary assessment (Bolger et al., 2003; Schwartz and Stone 1998).

Previous work has emphasized instrumental uses of research over enlightenment roles, dissemination processes over use and application, and research collation and synthesis over the creation of situated meaning. Each of these observations suggests a need for some rebalancing of the research effort.

Methodologically, the technical discussion in the first half of this paper has put forth the view that careful mixed-method and properly theorized case study work may be more informative than quantitative surveys that highlight self-report. Such surveys may have some use in the early exploration of an area, and later when appropriate metrics have been devised and tested, but too often they have been applied without sufficient regard to the complexity of the phenomena under study. Research use processes are often subtle and contextually situated, and methods should reflect this subtlety and be contextually sensitive if they are to be insightful. Longitudinal work with user panels can add depth and insight, and case studies that focus on apparent success can identify positive mechanisms and build theory. Ultimately, metrics and controlled experimental studies will be needed to examine and evaluate these theories and assess the impact of shifting strategies to support research use. Such experimental work should contain diverse methods of data gathering to fully capture the complexities of the interaction and effects between evidence and impacts.

DRAWING CONCLUSIONS

In this paper, we have emphasized the importance of appropriate conceptualizations of research use that move away from simple, rational, and linear models of knowledge transfer, based on the use of research-based knowledge by individuals. We have introduced ways of thinking about research, evidence, and knowledge as they enter and flow through diverse policy, organizational, and practice settings.

We drew upon previous work on assessing research use and impact to illustrate the potential for insightful study. Throughout, we have emphasized the importance of formative study through which research use processes would be better understood and supported. However, we assert that the potential for better understanding has not yet been fulfilled in most settings, and that there is a distinct lack of effective studies in policy and practice settings relevant to youth outcomes.

With this deficiency comes a significant opportunity: the latter part of the paper suggests a variety of avenues for future study and the methods that might be employed. While identifying some of the key research themes that need to be addressed by new empirical work, this agenda is just a beginning. We should also think about how the research community can be engaged to expand upon these beginnings, including the role of the William T. Grant Foundation and other funders in soliciting and supporting such engagement.

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