William T. Grant
F O U N D A T I O N

Assessing Research-Practice Partnerships

Five Dimensions of Effectiveness

Erin C. Henrick
Vanderbilt University

Paul Cobb
Vanderbilt University

William R. Penuel
University of Colorado-Boulder

Kara Jackson
University of Washington

Tiffany Clark
University of Colorado-Boulder

Assessing Research-Practice Partnerships:
Five Dimensions of Effectiveness

Erin C. Henrick
Vanderbilt University

Paul Cobb
Vanderbilt University

William R. Penuel
University of Colorado-Boulder

Kara Jackson
University of Washington

Tiffany Clark
University of Colorado-Boulder

October 2017

CONTENTS

PREFACE

Research-practice partnerships can address persistent challenges by producing new knowledge, building capacity, and informing action. But until now, we have not had a unified framework for understanding what marks certain partnerships as effective, let alone assessing this effectiveness. We hope that the dimensions and indicators provided here, drawn from the experiences of existing partnerships, can illuminate the common goals that cut across diverse types of RPPs and provide guidance on where to look for evidence that these goals are being met.

Vivian Tseng, 2017

Introduction

Educators in schools and districts in the United States are working under a great deal of pressure to provide high quality, equitable educational opportunities that support students' development into responsible, successful citizens prepared for college and careers. The U.S. school system faces complex challenges that impact the attainment of this goal, including poverty and racial inequality, inequitable learning opportunities, and highly varied teaching quality. Many stakeholders and entities, including families, community members, research organizations, foundations, and government organizations are attempting to address the challenging issues inherent in improving the quality of students' education.

However, there are concerns about whether educational research can make significant contributions to these improvement efforts. Educational practitioners report that the problems addressed by research studies are often far removed from the world of practice and that the findings are frequently difficult to interpret and challenging to apply to specific district contexts (Coburn, Honig, & Stein, 2009). Even when the questions addressed are of import to policymakers, the window of decision-making has already passed by the time that researchers are ready to present their findings and recommendations (Corcoran, Fuhrman, & Belcher, 2001).

Research-Practice Partnerships (RPPs) have emerged as a promising strategy for bridging the current gulf between research and practice by bringing together experts from both fields to address problems facing K-12 U.S. education. RPPs have been defined as long-term collaborations between researchers and practitioners that leverage research to address persistent problems of practice (Coburn, Penuel, & Geil, 2013). Education RPPs provide the organizational structure to facilitate sustained collaboration between researchers and practitioners to improve learning opportunities for students.

"RPPs have been defined as long-term collaborations between researchers and practitioners that leverage research to address persistent problems of practice."

RPPs are a relatively recent development, and there is currently limited literature about how to assess the effectiveness of these organizations. This is in part due to ongoing discussions about what it means for an RPP to be effective. Funders and RPP members agree that traditional ways of assessing the quality of a research study—such as the number of publications in peer reviewed research journals—do not adequately address critical aspects of RPP work, such as the development of a genuine partnership between researchers and practitioners or the impact of the RPP on the participating practice and research organizations.

As a consequence, RPPs have difficulty not only in gauging whether or not they are effective but also in demonstrating their effectiveness to stakeholders and funders.

In this white paper, we describe a framework that comprises five dimensions for assessing education RPPs (see Table 1). This framework includes a set of indicators for each dimension that describes where to look for evidence that an RPP is making progress on a particular dimension of effectiveness. The indicators are intended to guide the development of more specific protocols and measures that could contribute to a body of evidence related to partnership effectiveness. While we intend this framework to be useful for funders evaluating RPP proposals and assessing the extent to which a funded RPP is accomplishing its goals, we also believe it may be useful to current RPP teams and to researchers and practitioners planning an RPP. Specifically, this framework can help RPP teams develop assessment plans that will enable them to monitor and improve their work on an ongoing basis.

We begin by describing how we developed the dimensions and in doing so distinguish between three types of RPPs. We then describe the framework, which comprises five broad dimensions of effectiveness that represent objectives shared across the three types of RPPs. For each dimension, we articulate *indicators of progress* that partnerships might use to assess their progress in accomplishing each objective. We conclude by discussing how the framework might be used and then consider next steps for work in this area.

Development of Dimensions

Our first step in identifying dimensions of RPP effectiveness was to review the existing literature on education RPPs, RPPs in other fields, evaluation and assessment of cross-sector partnerships, and districts' use of research. Reviews by Coburn and colleagues proved to be especially helpful in organizing RRP work in education in a coherent manner (Coburn, Penuel, & Geil, 2013; Coburn & Penuel, 2016). Coburn et al. (2013) defined RPPs as long-term collaborations between researchers and practitioners that leverage research to address persistent problems of practice. They distinguish between three types of RPPs: research alliances, design research partnerships, and networked improvement communities (NICs).

Research alliances typically focus on a specific school district or a single region. For example, the Consortium on Chicago School Research is a longstanding alliance between the University of Chicago, Chicago Public Schools, and other local community organizations.[1] As a second example, Regional Educational Laboratories funded by the Institute of Education Sciences are typically composed of multiple research alliances that aim to support states and districts in their geographic regions in using data and research to improve academic outcomes for students.

In **design research partnerships**, researchers and practitioners typically collaborate to design, study, improve, and scale innovations in teaching and learning. Most design research partnerships aim to support teachers' development of specific instructional practices that have been linked empirically to student learning in a particular content area. For example, the MIST project housed at Vanderbilt University, included a research team led by researchers from several universities that

[1] See: https://consortium.uchicago.edu.

partnered with four large urban districts that sought to improve the quality of middle-grades mathematics instruction and students' learning.[2]

Networked Improvement Communities (NICs) are structured collaborations between education professionals, researchers, and designers that aim to support the development of networks that are organized around a shared problem of practice (Bryk et. al, 2015). Educational organizations participating in a NIC commit to use the tools and methods of improvement science to gather evidence, test new ideas, and share what is learned across the network. The goal in doing so is to systematically investigate how promising innovations can be adapted and made to work in a range of different contexts.

Hybrid RPPs that have characteristics of more than one of these three types have become increasingly common since Coburn et al. (2013) paper was released, particularly hybrids of design research partnerships and NICs.

Our second step in identifying dimensions of RPP effectiveness was to develop a protocol for a first round of semi-structured one-hour interviews conducted with two to three researchers and practitioners from each of the three types of RPPs. We selected interviewees from nationally recognized RPPs who are generally regarded as leaders in the field. The primary intent of the interviews was to test and revise our initial conjectures about possible goals for each type of RPP, capturing not only the RPP leaders' current goals but also what they would ideally want to accomplish. We also asked interviewees about indicators of progress toward each of their goals by asking how they would gauge whether they were achieving their goals. In addition, we collected relevant documents such as surveys, evaluation tools, and metrics that interviewees reported using to assess whether their education RPP was making progress.

"The resulting framework is normative from the perspective of insiders—it reflects the desired goals of those currently engaged in RPP work, rather than descriptions of what RPPs have accomplished to this point."

We analyzed the artifacts as well as audio recordings of interviews to develop an initial version of the framework for assessing RPP effectiveness and included indicators of progress for each dimension. We had anticipated that we would need to develop separate frameworks for each of the three types of RPPs but identified five broad dimensions that appeared to capture the actual and aspirational goals of participants in all three types. We shared the draft framework with and received feedback from our first round of interviewees. We then sought to address weaknesses and ambiguities suggested by the feedback by conducting a second round of interviews with eight additional members of the RPP community, including three members of NICs, two funders, and three leaders of national, state, and local educational agencies. As a final step, we solicited additional feedback on the revised framework when we shared it at a Design Based Implementation Research (DBIR) workshop and at the National Network of Education Research-Practice Partnerships (NNERPP) annual meeting during the summer of 2016. This feedback and revision process helped us refine the framework to be more useful for funders in their assessment of RPPs and also for team members engaged in an RPP.

[2] See: http://vanderbi.lt/mist.

The resulting framework is normative from the perspective of insiders—it reflects the desired goals of those currently engaged in RPP work, rather than descriptions of what RPPs have accomplished to this point. A recent study (Farrell et al., 2017) provides confirming evidence that goals from all five dimensions are pursued by partnerships of all types. The dimensions are, moreover, goals to which participants believe they should be held to account by stakeholders, including funding agencies.

In what follows, we describe each dimension and the related indicators of progress. The first two dimensions pertain to the quality of the partnership. The first dimension focuses on the RPP goal of *building trust and cultivating partnership relationships*. The second dimension relates to the RPP goal of *conducting rigorous research to inform action*. Significant progress on these two dimensions appears to be critical if an RPP is to make progress on the remaining three dimensions, which pertain to the results achieved by the partnership. The third dimension concerns the RPP objective of *supporting the partner practice organization in achieving its goals*. The fourth dimension relates to the RPP goal of *producing knowledge that can inform educational improvement efforts more broadly*. Finally, the fifth dimension focuses on the RPP goal of *building the capacity of participating researchers, practitioners, practice organizations, and research organizations to engage in partnership work*.

It is important to note that some of these objectives are more important to some types of partnerships than others. For example, some place-based alliances do not prioritize producing knowledge that can inform educational improvement efforts outside of the partnership. Although each of the five dimensions relates to a specific objective of RPPs, the key objective of improving the use of research in practice spans the second, third, and fifth dimensions. The second dimension describes conducting research that is both rigorous and relevant to practitioners, and thus has greater potential to be used; the third dimension concerns the extent to which the research is actually used to address specific problems of practice; and the fifth dimension focuses on building the capacity to use research to address problems of practice more generally.

DIMENSION 1

Building trust and cultivating partnership relationships

All of our interviewees indicated that strong interpersonal relationships grounded in trust are an essential aspect of effective education RPPs. They emphasized that such relationships are an essential foundation for productive collaborations that address challenging problems in education. Our interviewees also indicated that developing and maintaining relationships of trust between members of different organizations (e.g. school districts, universities, state education departments, and research firms) is challenging and requires significant time and commitment. Challenges that can negatively impact relationship building include a history of limited interaction between researchers and practitioners, a power imbalance between researchers and practitioners, differences in priorities and values, time constraints, and conflicting views of what counts as evidence (Coburn, Penuel, & Geil, 2013).

All the RPP leaders we interviewed reported that in the absence of strong relationships and trust, partnerships usually fail. For this reason, it is important to assess the extent to which RPPs are cultivating partnership relationships and fostering productive collaborations during all phases of their work.

What are indicators of progress on this dimension?

INDICATOR 1

One indicator that an RPP is making progress in building trust and cultivating productive relationships is that **researchers and practitioners routinely work together**. Investing time for joint work signifies commitment to the partnership and provides opportunities for team members to build trust, develop shared goals and work plans, and learn together. Our interviewees described meetings in which researchers and practitioners developed research agendas, assessed partnership progress, revised work plans, and adjusted partnership goals. Interviewees reported that the amount of time team members spend together can vary for a number of reasons, such as the physical distance between the research and educational organizations, the type of RPP, and the current focus of the work. However, as one interviewee aptly observed, signs that a partnership might be struggling include the repeated cancellation or rescheduling of meetings and the failure of a team to prioritize scheduling time to work together.

INDICATOR 2

A second indicator of partnership development is that **the RPP establishes routines that promote collaborative decision making and guard against power imbalances**. The standard characterizations of researchers as producers of knowledge and practitioners as consumers and implementers involves a deeply ingrained power imbalance that could well be reproduced when an RPP brings together groups of researchers and practitioners who do not have a history of working with each other. Our interviewees emphasized the importance of establishing organizational structures, routines, and norms of interaction that support the development of high-functioning collaborative teams. For example, several interviewees described structuring partnership meetings so that all team members can contribute substantially, thereby facilitating communication, guarding against possible imbalances of power, and creating conditions for the development of trust. Our interviewees viewed these intentional efforts to cultivate settings in which it is safe to share differing perspectives as essential. Several interviewees also reported that established partnership routines helped their RPP weather challenges, such as research findings that raised unanticipated and/or politically charged issues and turnover in leadership positions within the educational organization (e.g., school district personnel).

INDICATOR 3

A third, closely related indicator is that **RPP members establish norms of interaction that support collaborative decision making and equitable participation in all phases of the work**. While routines reflect how meetings are structured, norms of interaction reflect how that structure is enacted. Thus, routines create conditions in which trust can develop, and norms indicate whether trust is actually being established. For example,

although partnership meetings might be structured so that all team members can contribute, in the absence of productive norms, this routine might become a gratuitous compliance ritual. Evidence of productive partnership norms indicates that trust emerges as team members fulfill their obligations to one another.

"...strong interpersonal relationships grounded in trust are an essential aspect of effective education RPPs."

INDICATOR 4

A fourth indicator that an RPP is cultivating productive partnership relationships is that **RPP members recognize and respect one another's perspectives and diverse forms of expertise**. When team members in partnerships believe that the work they can do collectively is higher quality than the work they would do separately, and that relations of power are fluid and follow the contours of expertise (Elmore, 2006), there is a much greater likelihood that the partnership will sustain over the long term. One interviewee emphasized the importance of an RPP team taking the time to understand the strengths and types of expertise that each team member can contribute in order to capitalize on the knowledge available to the group. This understanding, in turn, allowed the group to address a given problem by drawing on team members' relevant expertise rather than relying on positional authority to drive the team's work.

INDICATOR 5

A fifth indicator for this dimension is that **partnership goals take into account team members' work demands and roles in their respective organizations**. Interviewees

reported that establishing both achievable goals and feasible partnership commitments supports the development of productive collaborative relationships and trust. One interviewee described this indicator in terms of "making sure the footprint of the partnership matched the partnership resources and time commitments." Another interviewee described a routine in which participants shared their work challenges and successes at the beginning of team meetings, which helped team members better understand differences in their organizational contexts and consider competing work demands when setting partnership goals.

DIMENSION 2

Conducting rigorous research to inform action

Interviewees across the three types of partnerships agreed that most education research has little impact on practice for the straightforward reason that it is not relevant to practitioners' concerns. They also characterized the development and work of RPPs as strategies to mobilize research to inform action (Weiss, 1979). Our interviewees also indicated that relevant criteria for high-quality research in the context of partnership work include both that the research is *methodologically rigorous* and that it is *relevant, timely, and useful for practitioners and policymakers.* Therefore, the second dimension we identified for assessing RPPs deals explicitly with the quality of the research conducted within an RPP. This dimension concerns *what* research an RPP conducts, *why* the RPP conducts this research, and *how* the RPP conducts the research. The indicators for this dimension therefore span the entire research process, from the formulation of research questions to the collection and analysis of data to the sharing of findings and the clarification of their implications for action. Given this broad perspective, we should acknowledge that some of the indicators would not be relevant for investigations that address a significant problem of practice by analyzing existing administrative datasets. This is also the case for reviews and syntheses of current research literature relevant to

a particular problem of practice, a significant aspect of most if not all RPPs' research activity.

What are indicators of progress on this dimension?

INDICATOR 1

One indicator of progress on this dimension is that **the RPP conducts research that addresses problems of practice facing the practice organization**. Interviewees across RPP types stressed the importance of researchers and practitioners determining the focus of the research collaboratively. Alliance members described bringing together multiple stakeholders, including researchers, educators, and community members, to jointly identify and prioritize the problems that the RPP would address. Design research team members described negotiating with education leaders and teachers to focus the work around problems of teaching and learning that were relevant to the practice organizations and that the researchers had the expertise to help address. Members of NICs described expert convenings, in which educators, researchers, and designers both negotiated how focal problems should be framed and specified the systems that produced the current situation.

INDICATOR 2

A second indicator of progress in conducting high-quality research is that **the RPP has developed systematic processes for collecting, organizing, analyzing, and synthesizing data**. Interviewees stressed that developing an efficient infrastructure for collecting and analyzing data was essential given that research findings are only useful if they are available when practitioners have to make critical decisions.

"...most education research has little impact on practice for the straightforward reason that it is not relevant to practitioners' concerns."

INDICATOR 3

A third indicator of progress on this dimension is that **decisions about research methods and designs balance rigor and feasibility**. Our interviewees agreed that RPP research must be methodologically rigorous and that findings must be valid and trustworthy, as they can impact the education of large numbers of students. In this respect, RPP research is like other approaches to education research that aspire to rigor by employing systematic methods of inquiry. However, our interviewees also emphasized the importance of feasibility in the context of RPP work and described selecting the most rigorous yet feasible research methodology that would enable them to address problems of practice within a reasonable timeframe. The methods that interviewees described using varied somewhat by partnership type and included standard qualitative and quantitative techniques, design research, and improvement science methods. Interviewees from all three types of RPPs also indicated the importance of using multiple sources of evidence, including the perspectives of key stakeholders

in the partnership, to support research claims. In addition, they made it clear that taking the systems, policies, and routines of the educational organization into account when interpreting findings is an aspect of high-quality research that can inform action.

INDICATOR 4

A fourth indicator of progress is that **the RPP conducts research to clarify and further specify problems of practice prior to identifying and assessing strategies for addressing those problems**. Interviewees described taking time at the beginning of each study to better understand the problems of practice that the partnership hoped to address. These initial investigations into the problems were often described as a critical first step that led to significant learning for both the researchers and practitioners involved in the partnership. When existing research on a problem of practice was already available, researchers reported synthesizing and sharing the findings with practitioners. For example, alliance researchers described conducting descriptive analyses to provide evidence that allowed them to better understand the depth and complexity of an issue. Design researchers described conducting initial, empirically-grounded assessments of the current practices of particular role groups (e.g., teachers, coaches, principals) and of relevant aspects of the contexts in which they had developed those practices. NIC team members described mapping existing organizational systems to determine why they produced current outcomes. Across the three types of RPPs, interviewees confirmed that reviewing the existent literature and conducting initial exploratory research allowed the team to develop a deeper, shared understanding of focal problems before beginning to investigate strategies to address them.

INDICATOR 5

A fifth indicator of progress is that **findings are shared in ways that take account of the needs of the practice organization**. Interviewees described the importance of maintaining transparency when sharing findings with a partner educational organization, especially if the findings have negative implications and will be released to the broader community. Interviewees across all RPP types also reported jointly interpreting findings in partnership meetings to build a shared understanding of the research results and their implications for action. Additionally, many interviewees discussed the importance of sharing findings in a variety of ways that might be appropriate for different audiences, including research briefs, infographics, and webinars.

DIMENSION 3

Supporting the partner practice organization in achieving its goals

Interviewees across partnership types reported that a primary goal of RPPs is to support the improvement efforts of the partner practice organization. Hence, the third dimension concerns the use of RPP research to address focal problems of practice. This stands in contrast to more traditional research studies that rarely have the explicit aim of supporting a practice organization's achievement of its goals. Usually, any benefits of a practice organization's participation in a traditional research project are viewed as a bonus rather than as a central goal of the project. While all our interviewees endorsed this goal strongly, their accounts of ways in which RPPs might provide support varied widely. We found that the type of RPP, the specific goals of the partnership, the expertise of team members, and the sources of funding influenced the types of support.

Looking across the interviews, alliance researchers usually described providing additional research capacity, including evaluating local policies and programs and developing indicators to predict desired outcomes. Design researchers recounted co-designing and co-implementing innovations such as professional development activities and instructional materials. NIC researchers described providing improvement science, content, and analytical expertise relevant to the problem being addressed; compiling and sharing findings and innovations across the network; and fostering the development of the network by organizing meetings and facilitating communication. Interviewees from all three types of RPPs also described interpreting research findings together (e.g., through data sharing and planning meetings) to support the improvement efforts of the partner practice organization.

"...a primary goal of RPPs is to support the improvement efforts of the partner practice organization."

Many reported that evidence of impact on the practice organization's attainment of its improvement goals is especially consequential because it is frequently the sole dimension of effectiveness on which their RPPs are assessed. However, a significant majority indicated that their goals are not exclusively local and that they

consider it equally important to influence practice and research more widely by contributing knowledge and insights to their respective fields.

Interviewees consistently indicated that assessing impact on practice organizations' improvement efforts can be challenging. The most commonly reported challenge concerns the influence of the local context on partnership work. School and district contexts include elements that are targets of improvement, as well as elements that are not likely to change. Often, aspects of the local context that are beyond the scope of partnership work strongly influence the impact of the partner practice organization's improvement efforts. For example, high turnover in practice organizations can influence an RPP's impact. Despite this and other challenges, it is essential for RPPs to determine feasible ways to assess the impact of their work on local improvement efforts.

What are indicators of progress on this dimension?

INDICATOR 1

A first indicator of progress on this dimension is that **the RPP provides research and evidence to support improvements in the partner organization**. Interviewees reported an urgency to show partnership impact on student outcomes, even when the focus of the partnership work was several steps removed from student outcomes (e.g. principal instructional leadership). One interviewee described addressing this issue by documenting evidence of how the partnership activities supported key aspects of the district's strategic plan. Other interviewees indicated the value of collecting data on relevant proximal and distal outcomes (e.g., the quality of classroom instruction and the quality of

the feedback that principals provide on instruction). This approach suggests that in cases where student outcomes are the ultimate evidence of partnership success, it is also important for RPPs and funders to assess incremental impacts of partnership work. For example, a partnership might focus on improving school leaders' practices as instructional leaders. In this case, the claim that any gains in student achievement are a consequence of partnership work is almost certainly flawed in light of other initiatives that the district might be implementing (e.g., teacher professional development, teacher learning communities, coaching, revisions to district curriculum frameworks, adoption of new curriculum materials, etc.). The RPP might therefore document evidence of improvements in the quality of feedback that principals give to teachers and also investigate whether, *in the context of the other local initiatives*, higher quality principal feedback supports improvements in the quality of teaching.

INDICATOR 2

A second indicator of progress on this dimension is that **the RPP helps the practice organization identify productive strategies for addressing problems of practice**. Our interviewees consistently indicated that RPP research can inform the practice organization's identification of productive organizational policies, processes, and structures, as well as productive strategies for improving leadership and teaching practices. The approaches they described included conducting research studies to assess the effectiveness of current strategies and reviewing relevant research literature to identify potential evidence-based improvement strategies to implement.

INDICATOR 3

A third indicator of progress on this dimension is that **the RPP informs the practice organization's implementation and ongoing adjustments of improvement strategies**. Interviewees, particularly from NICs and design research partnerships, reported using research evidence to understand how current improvement strategies were being implemented and how to adjust the strategies to make them more effective.

DIMENSION 4

Producing knowledge that can inform educational improvement efforts more broadly

It is clear from our interviews that most RPPs are working not only to support partner practice organizations in achieving improvement goals, but also to influence practice and research more broadly. The minority of RPPs for which influencing practice and research more broadly was not a goal tended to be place-based alliances supported by local funders who had fewer expectations for publishing in peer-reviewed academic journals or presenting findings at research conferences. When assessing most RPPs, it is therefore important to attend to the fourth dimension of effectiveness, which concerns impact on research and practice beyond the partnership.

Our interviews indicate that the ways in which an RPP attempts to make broader contributions vary depending on the type of RPP. For example, alliance interviewees described sharing indicator systems for important outcomes, such as the on-track indicator

systems for high-school graduation developed by the University of Chicago Consortium on School Research and the Research Alliance for New York City Schools (Kemple, Segeritz, & Stephenson, 2013). Design research interviewees discussed designs for supporting professional learning in specific content areas (e.g., designs for supporting the development of science coaches), as well as content- and practice-specific principles for designing supports for professional learning that can be used by other partnerships.[3] NIC interviewees reported sharing improvement science tools and practices across networks, as well as developing "change packages" that offer productive strategies for addressing problems of practice and are adaptable for a range of different contexts.[4]

[3] See http://learndbir.org/.
[4] See http://carnegiefoundation.org/.

What are indicators of progress on this dimension?

INDICATOR 1

A first indicator of progress toward impacting research and practice is that **the RPP develops and shares knowledge and theory that contributes to the research base**. A common indicator that an RPP is informing the work of others is the extent to which the partnership develops and shares findings and theory that furthers the field's understanding of what it takes to support educational improvement. Common vehicles for making research contributions that can inform educational improvement efforts include articles in peer-reviewed research journals, books, conference presentations, workshops, websites, and reports. Interviewees reported tracking a range of activities to document the contributions of their RPP to research outside of the partnership, including tracking typical research dissemination activities, such as research presentations and publications.

"...the ways in which an RPP attempts to make broader contributions vary depending on the type of RPP."

INDICATOR 2

A second indicator of progress on this dimension is that **the RPP develops and shares new tools and/or routines that can be adapted to support improvement work in other settings**. The range of indicators and routines produced by RPPs is broad and includes indicators that students' learning is on track, that students feel they belong in a particular class, and that teachers have reason and motivation to improve their instructional practices. Examples of routines include those for

productive collaboration between researchers and practitioners, for conducting formative assessments, and for testing adjustments to a practice, process, or tool.

INDICATOR 3

A third indicator of progress in this dimension is that **the RPP develops two dissemination plans, one that supports partnership goals** (e.g., sharing findings with community members) **and a second for broader dissemination**. For example, RPP researchers might produce memos and reports to share findings with their practice partners, journal articles to share findings with a broader research audience, and blog posts to share findings with a broader practice audience.

DIMENSION 5

Building the capacity of participating researchers, practitioners, practice organizations, and research organizations to engage in partnership work

The viability and sustainability of RPPs requires the building of human and organizational capacity to conduct partnership work. Interviewees reported that engaging in partnership work requires a fundamental shift in professional identity and in research practices. At present, a relatively small number of education researchers participate in RPPs, and the number engaged in RPP work that focuses on the quality of classroom instruction and on equity in students' learning opportunities is even smaller. As a consequence, opportunities for doctoral students and junior scholars to learn how to initiate and participate productively in an RPP are limited, even though there is an increasing demand from junior scholars for such opportunities. At the same time, most practitioners have few opportunities to engage in collaborative work with others professionals outside their organizations or even to develop a sense of what a genuine partnership with researchers might look like. Furthermore, few formal teacher education and administration programs prepare practitioners for this potential aspect of their work.

Traditionally, researchers and practitioners have engaged in largely separate professional activities. As a consequence, collaborating with each other on common problems requires significant changes in their respective practices, as well as in how each group views the other. For example, it is essential that RPP researchers move beyond viewing educational organizations as sites to be used for investigating problems that research communities consider important, and instead come to view these organizations as sites of problems of practice that need to be investigated *with* practitioners. This requires that researchers take the time to understand the challenges that practitioners face and that, in clarifying the nature of the challenges, they come to view the resulting problems as *their* problems. Our interviewees indicated that collaborating to negotiate the focus points of joint work and to develop and implement improvement initiatives could be opportunities for both researchers' and practitioners' learning. For example, graduate students' involvement in this work can enable them to become conversant in multiple methodologies, whereas conventional graduate education often emphasizes proficiency in a single methodology. For their part, participating in an RPP can support practitioners' development in designing and implementing improvement initiatives and in using research and data to inform all phases of improvement work.

In addition, several interviewees reported that their RPPs aim to support the development of the norms and culture of their partner educational organizations around the use of research and other evidence. Other interviewees indicated that their RPPs aim to build the organizational capacity of partner organizations by supporting the establishment of organizational routines for monitoring and addressing the problems that almost inevitably arise during implementation of potential solutions in a systematic, data-driven manner.

> *"…it is essential that RPP researchers move beyond viewing educational organizations as sites to be used for investigating problems that research communities consider important, and instead come to view these organizations as sites of problems of practice that need to be investigated with practitioners."*

The fifth dimension for assessing RPPs is therefore the extent to which an RPP supports the development of team members' capacities to productively engage in partnership work. By attending to this issue explicitly, RPPs can support both researchers and practitioners in developing new capacities and ways of working, while also helping partner educational organizations establish routines around the use of evidence in order to inform improvement work.

What are indicators of progress on this dimension?

INDICATOR 1

A first indicator of progress toward increasing team members' capacity to conduct partnership work is that **team members develop professional identities that value engaging in sustained collaborative inquiry with one another to address persistent problems of practice**. Interviewees described working to develop a culture that reflects the belief that the work researchers and practitioners can do together is better than the work they would be able to do separately because their perspectives and areas of expertise are complementary

and produce novel solutions to challenging problems when brought together.

INDICATOR 2

A second indicator of progress is that **team members assume new roles and develop the capacity to conduct partnership activities**. This often necessitates that researchers and practitioners develop new professional identities, practices, and ways of working. Interviewees described the importance of supporting researchers' development of the interpersonal, organizational, and communication skills needed to engage productively in typical partnership activities and to engage effectively with partnership stakeholders. Interviewees indicated that these capabilities are crucial when negotiating a shared focus with practitioners, coordinating the work within and across organizations, and sharing findings with different audiences. The interviews also suggest that there might be differences in some of the capabilities required for the three types of RPPs. Alliance researchers described the skills needed to effectively respond to the political nature of findings and negotiate data sharing agreements. Design researchers described interpersonal and design skills that are integral to collaborative design in an RPP. NIC researchers described facilitation and collaboration skills necessary for developing professional norms of trust to share innovations, data, and findings across a network and for supporting problem-solving conversations that are grounded in data and involve the use of improvement science methods and tools.

INDICATOR 3

A third indicator of progress on this dimension of RPP effectiveness is that the **participating research and educational organizations provide capacity-building opportunities to team members**. The researchers

we interviewed described providing opportunities for graduate students and post-doctoral fellows to participate in and eventually play a leadership role in various aspects of the partnership. For their part, the practitioners described inviting colleagues to participate in partnership activities that were relevant to their job responsibilities.

INDICATOR 4

A fourth indicator of progress is that **the work of the RPP contributes to a change in the practice organization's norms, culture, and routines around the use of research and other evidence**. Several interviewees indicated that the goals of their RPPs were not limited to addressing particular problems of practice but also included supporting members of their partner practice organizations to interpret and use research when making policy decisions and when designing and implementing improvement initiatives more generally. Interviewees described aiming to support the development of a culture of research use within educational organizations, something that past studies have found is associated with a higher level of research use (Penuel, Briggs, et al., 2017).

INDICATOR 5

A fifth indicator of progress on this dimension is that **there are shifts in professional expectations for education researchers and for practitioners that reward members from each organization for sustained participation in significant partnership work**. For example, the participation of practice organizations' leaders in partnership activities serves to indicate the importance of the work. Similarly, adjustments in the criteria for tenure and promotion of educational research faculty to include partnership activities signals that RPP work is valued.

INDICATOR 6

A sixth indicator of progress on this dimension of effectiveness is that **the RPP establishes conditions in the practice organization that lead to sustained impact beyond the life of the partnership**. Some interviewees reported documenting the spread of activities, or the extension of practices first initiated by partnership activities that move beyond the scope of the partnership. Other interviewees collected evidence of sustainability by documenting partnership routines, tools, and vocabulary that continued either after a partnership ended or after the focus of partnership work changed.

INDICATOR 7

A seventh indicator of progress is that **research and educational organizations allocate resources to support partnership work**. For example, restructuring job responsibilities of practitioners to provide time for collaboration with researchers can impact the common view that partnership activities are "in addition" to regular work responsibilities, as does research organizations' funding of personnel to faciltiate the establishment of partnerships with practitioners.

Using the framework

The five dimensions of RPP effectiveness that we have discussed are intended to be broadly applicable across education RPPs. Two issues need to be addressed when using the framework to guide the assessment of a particular RPP. The first concerns the customization of the framework to the goals and theory of improvement of the RPP, and the second concerns the development of measures and protocols that serve to operationalize the indicators that are relevant to a particular RPP.

Customizing the Framework

The dimensions of effectiveness that cut across the three types of RPPs are relatively general. When designing an assessment of a specific RPP, however, other characteristics of the partnership, which are not adequately captured here, must be considered. Key characteristics that should be taken into account include the goals of the RPP, as RPPs differ in terms of what they are attempting to improve (e.g., the coordination between key departments of the practice organization, coaches' practices while working with teachers, student mathematics achievement on an assessment aligned with college and career readiness standards). In addition, it is also important to tailor the assessment to the RPP's theory of improvement (ToI), which articulates the hypothesized mechanisms or processes by which the intended improvements will be produced.

A key step in designing a specific assessment is to identify the indicators for each dimension of effectiveness that are relevant to the RPP and customize those indicators to the RPP's goals and ToI. As an illustration, we focus on the five proposed indicators for the first dimension of effectiveness, *building trust and cultivating partnership relationships*:

- Researchers and practitioners routinely work together.
- The RPP establishes routines that promote collaborative decision making and guard against power imbalances.
- RPP members establish norms of interaction that support collaborative decision making and equitable participation in all phases of the work.
- RPP members recognize and respect one another's perspectives and diverse forms of expertise.
- Partnership goals take into account team members' work demands and roles in their respective organizations.

These indicators describe where to look for evidence that an RPP is making progress on a particular dimension of effectiveness. However, they are generic and have to be fleshed out by customizing them to the ToI of the RPP being assessed. Consider, for example, the first of these indicators: *researchers and practitioners routinely work together*. Clearly, if the work is to contribute to the development of productive collaborative relationships, it

is important that both researchers and practitioners view the work of the RPP as contributing to the attainment of an improvement goal. However, the significant work that has to be accomplished fluctuates over time in most RPPs. The assessment of an RPP's progress on the first dimension therefore needs be customized to the ebb and flow of the RPP's work demands.

> *"...it is important to tailor the assessment to the RPP's theory of improvement, which articulates the hypothesized mechanisms or processes by which the intended improvements will be produced."*

To this point, we have spoken as though an RPP has a single, overarching ToI. However, the above illustration clarifies that it can be useful to view RPPs as having a ToI for each of the five dimension of effectiveness, such as, for example, building trust and collaborative relationships. Although it might seem burdensome to articulate a ToI for each dimension, this is often a useful exercise, as it can lead to revisions of a previously largely implicit ToI, revisions that have the potential to improve the effectiveness of the RPP on the relevant dimension.

We should acknowledge that in explicating the ToI for each dimension, it might become apparent that some of the indicators we have proposed are less important for a particular RPP. In addition, other indicators that we have not considered might be relevant to a particular RPP. The identification of additional indicators can inform the elaboration of the framework. Such revisions are consistent with our view of the framework as a work in progress that is best improved as it is used.

Developing Measures and Protocols

The indicators included here, which describe where to look for evidence that an RPP is making progress on a particular dimension of effectiveness, are intended to guide the development of more specific quantitative measures and qualitative protocols. Two tradeoffs need to be considered when developing such measures and protocols.

The first is the tradeoff between general assessment tools that can be used across RPPs and boutique tools developed to assess a particular RPP. General assessment tools support comparison and benchmarking but might not be a sufficiently good fit with the corresponding indicator once they have been customized for a particular RPP. For example, a survey assessment instrument developed by Wentworth, Mazzeo, and Connolly (2017) to assess the impact of an RPP on practitioners' use of evidence in their decision making has proven useful across a range of RPPs. Additionally, Penuel and colleagues have shared scales for assessing a practice organization's culture of research use and its conceptual use of research (Penuel, Briggs et al., 2017). In contrast, boutique tools are designed to fit with the corresponding customized indicators but require resources to develop and might well have limited broader utility. We speculate that it will be easier to use common assessment tools for some of the five dimensions of effectiveness than for others. For example, the indicators for the first dimension, *building trust and cultivating partnership relationships*, might be applicable to most if not all RPPs with only minor adjustments when they are customized. In contrast, the indicators for the third dimension of effectiveness, *supporting the partner practice organization in achieving its goals*, will need to be adjusted to a partnership's

specific improvement goals, and these goals vary widely across RPPs. Furthermore, RPPs may also need to gauge progress toward improvement goals that emerge while their work is in progress, thus requiring the appropriation or development of additional assessment tools.

In our view, existing assessment tools should be examined for their fit with the corresponding customized indicators before embarking on the development of boutique tools. We therefore see considerable value in a repository of measures and protocols that can support the use of common assessment tools. A repository of measures can also make boutique tools available to the possibly small number of RPPs to which they might be useful. A repository of this type might be housed by a national organization for RPP work, such as the National Network of Education Research-Practice Partnerships (NNERPP), or by a funder whose interests and portfolio include RPPs.

The second tradeoff happens as RPPs decide whether to develop and use quantitative measures or qualitative protocols in assessing their progress on each dimension. Quantitative measures such as short surveys can usually be administered and analyzed relatively quickly with only minor disruptions to practitioners' ongoing work. However, developing quantitative measures to assess the quality of some aspects of practitioners' and researchers' individual and joint work is likely to be extremely challenging, especially when there is no common language for describing particular domains of activity. In this latter case, the tradeoff might well favor using qualitative protocols even though additional resources are needed to collect and analyze data and the assessment process might be more disruptive for practitioners. Looking across the five dimensions of effectiveness, we speculate that it might be relatively straightforward to develop short surveys for most if not all of the indicators for the fifth dimension, *building*

the capacity of participating researchers, practitioners, practice organizations, and research organizations to engage in partnership work. In contrast, it might be more challenging to develop quantitative measures for most of the indicators for the second dimension, *conducting and using high-quality research to inform action.*

"In addition to considering the feasibility of developing solid quantitative measures, reasonable resolutions to this tradeoff require that the purpose of and audience for the assessment be taken into account."

In addition to considering the feasibility of developing solid quantitative measures, reasonable resolutions to this tradeoff require that the purpose of and audience for the assessment be taken into account. For a funder that wants to assess the RPPs in its portfolio, or for an RPP that wants to demonstrate its accomplishments to local stakeholders or funders, relying on quantitative measures might suffice, provided the resulting picture of the partnership's effectiveness, while incomplete, is not misleading. However, for an RPP that wants to use an assessment to improve its effectiveness, it is likely necessary to use qualitative protocols as well as quantitative measures. In this latter case, data collection and analysis can be made manageable by focusing on particular dimensions and indicators during various phases of the RPP's lifespan. For example, it is critical that researchers and practitioners establish productive collaborative relationships during the initial phase of an RPP. For an RPP that wants to improve its effectiveness in this regard, it is probably necessary to use a mixed-methods approach to assess the progress it is making on the first dimension of effectiveness, as resources permit.

Conclusion

We have proposed a framework for assessing RPPs that specifies five dimensions of effectiveness and includes associated indicators of progress on each dimension. We speculate that the dimensions are reasonably solid given the relatively large number of RPP participants and other stakeholders who have reviewed the framework. In contrast, we regard the delineation of indicators as a work in progress and have suggested that additional indicators might be identified when the framework is actually used to guide the assessment of RPPs. We also discussed two important steps in using the framework. First, we emphasized the importance of articulating a ToI for each dimension of effectiveness and of customizing the indicators to this ToI. Second, we took a pragmatic approach when discussing the development of measures and protocols that operationalize the customized indicators by clarifying the tradeoffs in using general or boutique assessment tools and in deciding to develop and use quantitative measures or qualitative protocols to assess progress on each dimension.

We noted at the beginning of the paper that RPPs are a promising strategy for making substantial contributions to the improvement of students' education by harnessing researchers' and practitioners' complementary forms of expertise. However, the development of feasible, solid, and reliable approaches for assessing and improving the effectiveness of RPPs is essential if that promise is to be realized.

TABLE 1

FRAMEWORK FOR ASSESSING RESEARCH-PRACTICE PARTNERSHIPS

DIMENSION	INDICATORS
Building trust and cultivating partnership relationships	• Researchers and practitioners routinely work together. • The RPP establishes routines that promote collaborative decision making and guard against power imbalances. • RPP members establish norms of interaction that support collaborative decision making and equitable participation in all phases of the work. • RPP members recognize and respect one another's perspectives and diverse forms of expertise. • Partnership goals take into account team members' work demands and roles in their respective organizations.

DIMENSION	INDICATORS
Conducting rigorous research to inform action	• RPP conducts research that addresses problems of practice facing the practice organization. • The RPP establishes systematic processes for collecting, organizing, analyzing, and synthesizing data. • Decisions about research methods and designs balance rigor and feasibility. • The RPP conducts research to clarify and further specify problems of practice prior to identifying and assessing strategies for addressing those problems. • Findings are shared in ways that take account of the needs of the practice organization.

DIMENSION	INDICATORS
Supporting the partner practice organization in achieving its goals	• The RPP provides research and evidence to support improvements in the partner organization. • The RPP helps the practice organization identify productive strategies for addressing problems of practice. • The RPP informs the practice organization's implementation and ongoing adjustments of improvement strategies.

DIMENSION	INDICATORS
Producing knowledge that can inform educational improvement efforts more broadly	• The RPP develops and shares knowledge and theory that contributes to the research base. • The RPP develops and shares new tools and/or routines that can be adapted to support improvement work in other settings. • The RPP develops two dissemination plans, one that supports partnership goals and a second plan for broader dissemination.

DIMENSION	INDICATORS
Building the capacity of participating researchers, practitioners, practice organizations, and research organizations to engage in partnership work	• Team members develop professional identities that value engaging in sustained collaborative inquiry with one another to address persistent problems of practice. • Team members assume new roles and develop the capacity to conduct partnership activities. • Participating research and educational organizations provide capacity-building opportunities to team members. • The work of the RPP contributes to a change in the practice organization's norms, culture, and routines around the use of research and evidence. Research and practice organizations allocate resources to support partnership work. • There are shifts in professional expectations for education researchers and for practitioners that reward members from each organization for sustained participation in significant partnership work. • The RPP establishes conditions in the practice organization that lead to sustained impact beyond the life of the partnership. • Research and educational organizations allocate resources to support partnership work.

REFERENCES

Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015). *Learning to improve: How America's schools can get better at getting better*. Cambridge, MA: Harvard Education Press.

Coburn, C. E., Honig, M. I., & Stein, M. K. (2009). What's the evidence on districts' use of evidence? In J. D. Bransford, D. J. Stipek, N. J. Bye, L. M. Gomez & D. Lam (Eds.), *The role of research in educational improvement* (67-87). Cambridge, MA: Harvard Education Press.

Coburn, C.E., Penuel, W.R., & Geil, K.E. (January 2013). Research-Practice Partnerships: A Strategy for Leveraging Research for Educational Improvement in School Districts. William T. Grant Foundation, New York, NY.

Corcoran, T. B., Fuhrman, S., & Belcher, C. L. (2001). The district role in instructional improvement. *Phi Delta Kappan*, 83(1), 78-84.

Elmore, R. F. (2006). Leadership as the practice of improvement. OECD International Conference on Perspectives on Leadership for Systemic Improvement, London.

Farrell, C. C., Davidson, K. L., Repko-Erwin, M., Penuel, W. R., Herlihy, C., Potvin, A. S., & Hill, H. C. (2017). *A descriptive study of the IES Researcher-Practitioner Partnerships in education research program: Interim Report*. Boulder, CO: National Center for Research in Policy and Practice.

Penuel, W. R., Briggs, D. C., Davidson, K. L., Herlihy, C., Sherer, D., Hill, H. C., ... & Allen, A. R. (2017). How School and District Leaders Access, Perceive, and Use Research. *AERA Open*, 3(2), 2332858417705370.

Tseng, V., & Nutley, S. (2014). Building the infrastructure to improve the use and usefulness of research in education. In K. Finnigan & A. Daly (Eds.), *Using research evidence in education: From the schoolhouse door to Capitol Hill. Policy implications of research in education* (163-175). Switzerland: Springer International Publishing.

Weiss, C. H. (1997). Theory-based evaluation: Past, present, and future. *New Directions for Evaluation*, 1997(76), 41-55. DOI:10.1002/ev.1086

Weiss, C. H., & Bucuvalas, M. J. (1980). *Social science research and decision-making*. New York, NY: Columbia University Press.

William T. Grant Foundation RPP microsite. http://rpp.wtgrantfoundation.org/

570 Lexington Avenue, 18th Floor
New York, NY 10022

wtgrantfoundation.org
info@wtgrantfdn.org