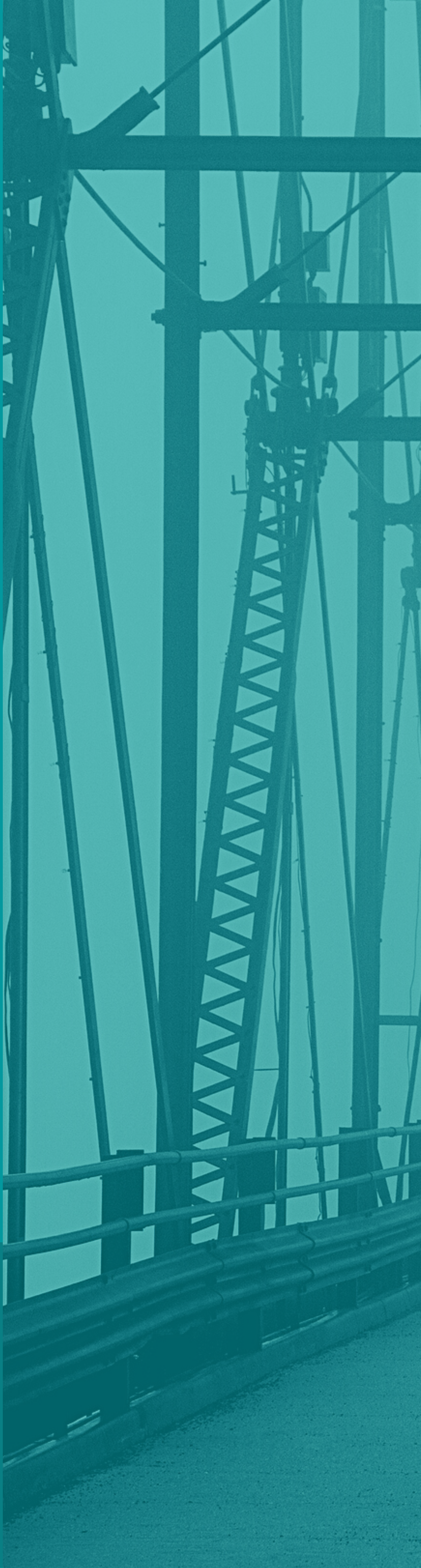
RPP BROKERS HANDBOOK, V.2

A GUIDE TO BROKERING IN EDUCATION RESEARCH-PRACTICE PARTNERSHIPS



NNERPP
NATIONAL NETWORK OF EDUCATION RESEARCH-PRACTICE PARTNERSHIPS

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PREFACE, 2.0

When we first presented Version 1 of this Handbook to participants at the NNERPP Annual Forum in July 2021 and then published it shortly thereafter, we were excited to receive positive feedback from the NNERPP community on the included broker cases and to see many community members working in research-practice partnerships embrace this documented set of tools and vignettes highlighting the work of RPP Brokers. The NNERPP community very much appreciated seeing their tools and broker moves written up in a more formal way, with many making immediate connections between the cases in the Handbook and their day-to-day work in RPPs.

We were equally excited that many members of the NNERPP community also shared with us how they are practically using the Handbook to support their brokering practice. Some members of the NNERPP community, for example, are using the Handbook and cases contained within it while on-boarding new staff members. Others are planning to use the cases described in the Handbook to provide training to staff, both existing and new, in order to grow and strengthen their brokering skills. Interestingly, many also saw the Handbook as a way of making the broker role and the activities brokers engage in more visible to leaders within their respective organizations, as well as to the RPP world more generally.

Most importantly, we also heard some feedback and ideas from NNERPP members about how we could improve the Handbook. Those suggestions included further defining some of the named RPP broker activities, including additional competencies --such as knowledge management tools and stories--, as well as adding cases about supporting brokering practices in more mature RPPs. Other NNERPP members suggested integrating the cases into the narrative of the Handbook and summarizing all the cases in one place. Some also shared that it might be useful to include the names of the featured RPPs and bios of the authors. Most importantly, the NNERPP members wanted more cases!

As is our culture, we responded to these invitations for improvement, and did so in two ways. First, in late 2021, we put out a call for more cases. The community answered, and we are pleased to share that this updated version of the RPP Brokers Handbook contains 18 new cases (you can find these easily in the text by looking for the word “NEW” next to their title). The bulk of the new cases are in the “designing processes and communication routines” and “assessing and continuously improving the partnership” sections.

Additionally, we are excited to announce that in 2023, Routledge will be publishing an open-access version of our RPP Brokers Handbook. Our intent is for this version of the Handbook to address the remaining ideas for improvement relayed by the NNERPP members in 2021.

Please think of this version of the Handbook as Version 2.0. We hope you enjoy the newly added cases. And should they inspire even more cases, we would welcome receiving any ideas you may have for new cases to be included in future editions! We look forward to growing the body of RPP Broker tools and vignettes over time. Many thanks to all of the authors who have contributed cases and helped build this incredible resource for the field!

Laura, Carrie, Samantha, and Paula

September 27, 2022

(Please send feedback and ideas for new cases to Laura Wentworth laura@caedpartners.org.)

PREFACE

Brokers in research-practice partnerships (RPP) are an essential component for helping researchers and practitioners work together on research that supports improvements in education. They are the professionals that serve as the bridge between the research and practice communities within partnerships. Despite this critical connector role, brokers are often undervalued or not given the importance they deserve due to engaging in the necessary "invisible work" that results in impactful research. This handbook aims to codify the work of RPP brokers in education, thereby identifying the specific and essential role they play in enabling public scholarship and social impact. The handbook describes brokers' activities through a new framework, and shares the tools and behaviors used and enacted by brokers.

The National Network of Education Research-Practice Partnerships (NNERPP) incubated and supported the idea for this handbook and helped make the handbook a reality. The idea for the handbook blossomed at a previously held NNERPP Annual Forum, the yearly gathering of NNERPP members, RPP leaders and participants interested in learning, reflecting, and honing their skills and knowledge in working in and leading RPPs. Each year at the Annual Forum, there is a dedicated session for professionals who self-identify as RPP brokers. The very first session where brokers initially convened felt like a party among kindred spirits. There was a feeling in the air that this group of professionals could collectively work together to strengthen their skills and knowledge and to establish the role of a broker in an education RPP as an important figure in the U.S. field of education.

After convening for a second and third time, the RPP brokers started to codify some of the group's best practices. We wanted to document these practices in hopes of strengthening the craft of brokering and helping to spread NNERPP members' brokering practices across the field of education. It is our hope that this handbook is useful to current and aspiring RPP brokers interested in learning about and honing the craft of brokering. As we would like this to be a "living" document, we welcome your feedback, ideas for new cases, and contributions for additional vignettes or tools.

Carrie, Laura, Samantha, and Paula

July 16, 2021

(Please send feedback and ideas for new cases to Laura Wentworth at laura@caedpartners.org.)

EXECUTIVE SUMMARY

Research-practice partnerships (RPPs) are a promising mechanism for promoting research use, improvement, and equity in education. Despite this potential, RPPs also come with their own sets of challenges. Emergent research on RPPs has highlighted brokering as a key function that helps start, support, and maintain these partnerships. As such, the National Network of Education Research-Practice Partnerships (NNERPP) has produced a resource, titled, Brokering in Education Research-Practice Partnerships: A Handbook, aimed at supporting educators, researchers, or stakeholders involved in an RPP who either currently act as an RPP broker or aspire to become an RPP broker. This handbook offers a practical framework for describing the specific activities brokers use to do their work and examples of what those activities look like in practice.

The framework in this handbook describes two types of activities in RPP brokering: 1) Brokering to strengthen partners through supporting participants' research use and production, developing, and nurturing relationships to weather challenges, and building individual competencies to manage an RPP, and 2) Brokering to strengthen the partnership through developing partnership governance and administrative structures, designing processes and communications routines, and assessing and continuously improving the partnership. The handbook includes cases that highlight some of the strategies and tools brokers use to support their partnership's work. These cases are presented alongside a description of their associated section of the RPP brokering framework.

We envision the framework and cases in this handbook being used by a number of audiences in different ways. In terms of audience, the first community we envision using this handbook are current and aspiring RPP brokers. Another audience for this handbook is the growing number of university instructors or faculty who are teaching courses on working in research-practice partnerships. Finally, we see a growing number of non-profit organizations, state or school district departments, and university centers that bring on new staff using the handbook to train these staff on how to engage in RPPs.

1 Introduction

Research-practice partnerships (RPPs) are a promising mechanism for promoting research use, improvement, and equity in education. RPPs are long term, mutualistic collaborations between researchers and practitioners focused on practitioner-identified areas of improvement and equity. RPPs use specific strategies to support the health of the partnership and produce original analysis from research to inform local decision-makers and the field at large. Over the past three decades, RPPs in education have flourished with support from grant-making programs through the U.S. Department of Education's Institute of Education Sciences, the National Science Foundation, the Spencer Foundation, and the William T. Grant Foundation, among other granting agencies. These partnerships have also strengthened and spread with help from organizations like the National Network of Education Research-Practice Partnerships (NNERPP) and with research evidence from two IES funded centers: the National Center for Research on Policy and Practice (NCRPP) and the Center for Research Use in Education / Research for Schools (CRUE/R4S).

While RPPs have potential to promote improvement and equity in education, they also come with their own sets of challenges. Ask any professional working in an RPP, and they will attest to barriers and roadblocks involved in launching and maintaining these partnerships. The research-side organizations, such as universities and research institutes, often do not incentivize faculty or research scientists to center their work in collaboration with those in education practice. On the practice-side, organizations like educational non-profit service providers, community organizations, state agencies, districts and schools often do not provide supportive conditions, including time and resources, for their professionals to engage in these partnerships. Additionally, the field is still figuring out what makes RPPs effective at producing research that is useful and impactful at supporting equitable educational opportunities and outcomes. There are researchers examining what characteristics in RPPs make these partnerships more or less effective, but the results of this research are slow and not always actionable for professionals participating in or leading RPPs.

Emergent research on RPPs has highlighted brokering as a key function that helps start, support, and maintain these partnerships. Brokers in RPPs are professionals who cultivate and maintain the relationships needed to effectively support research production and use in RPPs, effectively bringing together members of research and practice organizations in true partnership. Equipping professionals who serve in brokering positions with the capabilities needed to effectively broker is thus critical to the overall health and development of RPPs.

As such, the National Network of Education Research-Practice Partnerships (NNERPP) has produced a resource aimed at supporting educators, researchers, or stakeholders involved in an RPP who either currently acts as an RPP broker or aspires to become an RPP broker. This handbook offers a practical framework for describing the specific activities brokers use to do their work and examples of what those activities look like in practice. Specifically, we focus on two types of activities: 1) *brokering to strengthen partners* through supporting research use and production, building relationships to weather challenges, and building individual competencies to manage an RPP, and 2) *brokering to strengthen the partnership* through developing partnership infrastructure, designing social structures, and assessing and reflecting on the partnership. The handbook includes cases that showcase some of the strategies and tools brokers use to support their partnership's work.

2 Background

2.1 The divide between research and practice in education

Historically, there has been a large gap between research and practice in education. For example, Nelson and Campbell (2017) describe the field of education's difficulty in achieving what they call "evidence-informed practice" at a systems level, where evidence, sometimes including research evidence, informs decisions that positively influence educational improvements. Nelson and Campbell attribute this challenge to a lack of consensus on key questions about what evidence-informed practice means: what is reliable evidence, what constitutes research, or what are the mediating processes that bridge evidence and practice. Wentworth and colleagues (2021) describe three dimensions of the research-practice gap, including the knowledge gap, which is knowledge produced by research that is not used by practitioners; there is the design gap, wherein new interventions need time and extensive testing to produce a high burden of proof which does not keep pace with the rapid decision-making of practitioners; and finally, there is the context gap, which is that knowledge from research produced in one setting does not easily apply or cannot be easily replicated across multiple settings.

2.2 RPPs help research and practice intersect

To bridge these gaps, researchers and practitioners cite the strategy of research-practice partnerships as a remedy. Research-practice partnerships are long-term relationships between researchers and practitioners who work for mutual benefit, produce original research, and have specific strategies for working together and supporting outcomes like research use (Coburn & Penuel, 2016; Farrell, et al., 2018). Farley-Ripple, et al., (2018) describes research-practice partnerships as having the potential to support research use in educational organizations as they emphasize "co-construction" of research rather than "dissemination and uptake" (p. 7). (See also, Henrick & Klafehn, 2018; Farrell, Coburn, & Chong, 2019).

Both researchers and practitioners describe how their partnerships help research support improvement and equity in the education sector. They detail the important roles, routines and structures of partnerships that support researchers' and practitioners' engagement in their work together (Penuel, Coburn, & Gallagher, 2013; Farrell, et al, 2018; Farrell, et al., 2019a). They discuss the importance of building trust and developing relationships to strengthen the work of partnerships (Tseng, Easton, & Supplee, 2017; Kochanek, et al., 2020). They also describe the importance of learning and sense-making together as they work on research together (Penuel, et al., 2015; Bevan, et al., 2017). RPPs have to address authority (Cobrun, Bae, & Turner, 2008), and race and power (Denner, et al., 2019) to manage power differentials and issues like racism and classism that inevitably influence partnership development.

2.3 Brokers sustain and support RPPs

One of the roles needed for starting, supporting, and maintaining research-practice partnerships is a broker. We define a broker as a person who helps members of research and practice organizations integrate into an RPP by cultivating and maintaining the relationships needed to effectively support research production and use (Cooper, 2014; Neal, et al., 2015; Farley-Ripple, et al., 2018). Davidson and Penuel (2020) suggest "brokering acts are crucial for sustaining RPPs" (p. 154). Brokers support "joint work" between researchers and practitioners by crossing the professional and organizational boundaries between their worlds. This stands in contrast to the translational paradigm of research use, where researchers conduct research in one world and translate findings for practitioner use in another world (Penuel, et al., 2015).

If brokering is an essential role within RPPs, then it is even more important that the field understand the activities brokers undertake to support RPPs. One way to think about the work of brokers is through the five functions of knowledge brokers (Ward, et al., 2009; Glegg & Hoens, 2016). First, knowledge brokers can act as *information managers* by seeking and sharing relevant education research, as well as context-specific knowledge (e.g., culture, processes, and barriers) with stakeholders to inform decision-making processes. Second, knowledge brokers can function as *linkage agents* by fostering relationships among researchers and education professionals. Third, knowledge brokers can serve as *capacity builders* by developing organizational (e.g. developing structures to support research use) and individual capacity (e.g., development of positive attitudes toward evidence, as well as skills for interpreting and using research to engage in research use). Fourth, knowledge brokers can act as *facilitators* by guiding and supporting individuals in integrating research, contextual, and experiential knowledge into educational decision making. Fifth, knowledge brokers can serve as *evaluators* by assessing the local context to inform knowledge brokering activities, evaluating the outcomes of RPP activities, and evaluating the knowledge broker's own knowledge brokering performance. Within RPPs, some knowledge brokers may function mostly in one of these role domains, while others may cross all five categories to facilitate the use of evidence within their partnerships.

With this handbook, we wanted to move beyond a theoretical framework, similar to what was described above about knowledge brokers, and move toward a more practical framework for RPP broker activities to advance how aspiring, existing, and veteran brokers execute their work. Consequently, we examined the essential activities executed by brokers using three sources of evidence. First, we examined the RPP broker activities through our own practice-based reflection. Three of the four authors have been active brokers in research-practice partnerships in education, and we based some description of brokering activities on our professional experiences. Second, we examined the activities of RPP brokers through NNERPP member stakeholder feedback. At each NNERPP Annual Forum, we gathered information from self-identified brokers attending the event who showed up to the role-like session for RPP brokers. Third, we conducted a systematic scoping review of the literature. We explain our methods for developing this framework in Appendix A, and in the next section, we describe the framework in a detailed narrative.

3 The Framework

As seen in Figure 1, the framework addresses six key activities, grouped into two overarching skill sets, *Brokering to Strengthen Partners* and *Brokering to Strengthen Partnership.*

Brokering to strengthen partnering includes activities related to building individual partners' competency for engaging in an RPP, developing and nurturing relationships to weather partnership challenges, and creating the conditions to support research production and use. Brokering to strengthen the partnership includes activities associated with developing partnership governance and administrative structures, designing processes and communications routines, and assessing and continuously improving the partnership. The remainder of the handbook contains information on these activities obtained from the systematic scoping review. It is important to note that findings from the systematic scoping review were largely descriptive (e.g., case studies, self-report surveys) in nature. Therefore, included studies do not comment on the effectiveness of particular brokering activities, but rather describe which activities were conducted. Appendix B describes which concepts and themes relate to which research study, while Appendix C provides the full references for records included in the review. Moreover, each section below includes case studies that discuss situations encountered by brokers working in the field and tools to support brokers in their work.

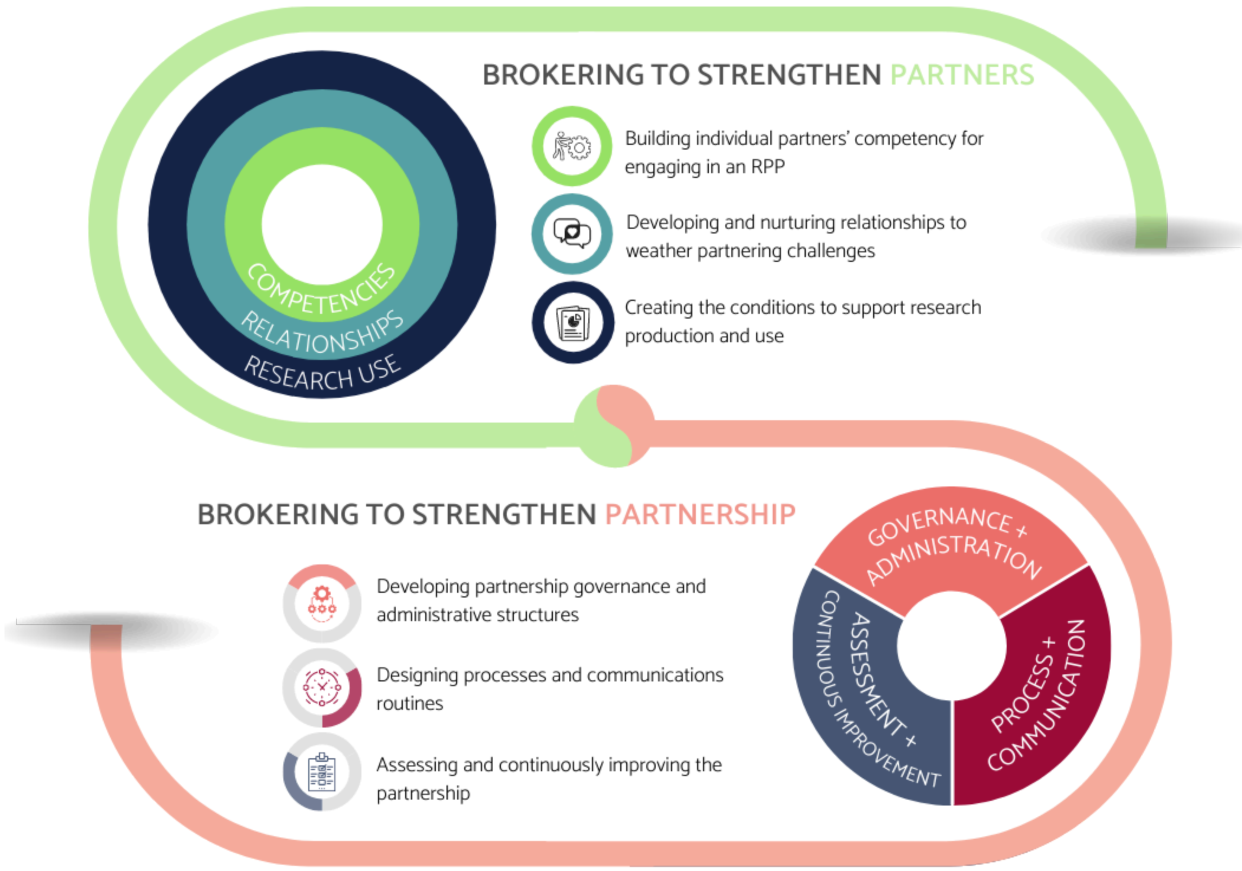

FIGURE 1. A Framework to Explore the Work of Brokers in Education RPPs

3.1 Brokering to Strengthen Partners

We begin by describing the collection of activities brokers need to strengthen *partners* in RPPs. When talking about the "partners," we mean the set of *actions* partners take while collaborating in service of partnership efforts. For example, this can include working together to identify and define a problem important to practice, then transforming that candidate problem into a research question the partnership will address together. These kinds of activities are central to partnership work, and thus, the broker's role of enabling the successful enactment of such partnering activities is critical.

We identify three important activities a broker must attend to when strengthening the *partners*, which build on each other: First, brokers must *build individual partners' knowledge and skills* to collaborate effectively. Second, brokers must *develop and nurture partners' relationships to weather challenges* that will test the limits of effective collaboration. And third, brokers must *create the conditions to support partners' research production and use*, which are often the central aims of partnership work.

We discuss each of these activities in greater detail below.

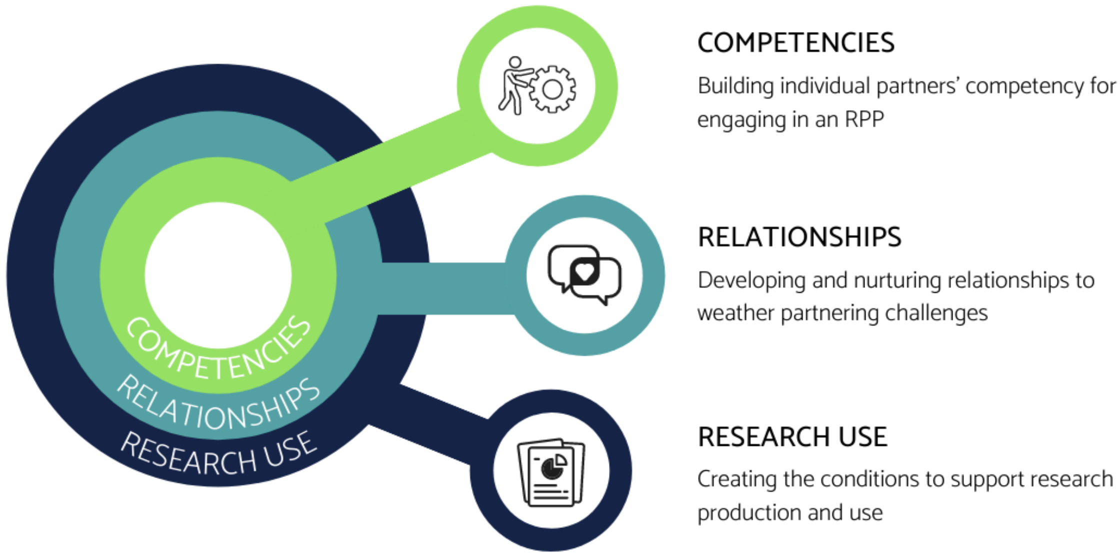

FIGURE 2. Broker Responsibilities to Strengthen *Partners*

3.1.1 Brokering To Strengthen Partners Key Activity #1
Building Individual Partners' Competency for Engaging in an RPP

A foundational element of partnership work is having the competencies necessary to collaborate effectively with partners. This is a key challenge in strengthening partnerships given that RPP participants (i) are working with stakeholders who are outside of their home organization, and therefore, are operating under different timelines, incentive structures, and cultures, and (ii) are not typically trained to work with external stakeholders. Therefore, a first priority of an RPP broker must be to build the partners' competencies so that they may have the knowledge and skills necessary to navigate these challenges. We first identify the competencies needed by partners, including a number of individual knowledge and skills that are critical in strengthening partners ability to work together. Then, we discuss the broker's role in *building individual partners' competencies* to collaborate effectively.

3.1.1.A Developing partners' competencies needed for partnering

We identify four individual competencies that collectively form the knowledge and skill base partners need to engage in partnership efforts; these are the capabilities that a broker must help develop in their role (how to develop these skills will be covered in the following section). These include: (i) knowledge of the self + local context; (ii) ability to engage with your partners; (iii) research, evaluation, and design skills; (iv) integration of research to support research production and use.

(i) INDIVIDUAL | Knowledge of the self + local context

There are two individual perspectives that are central to strong partners: knowledge of the self and knowledge of the local context.

First, partners need “knowledge of self” (i.e., personal and situational factors that influence current self-representation). This can include an understanding of how one identifies by race, gender, sexual orientation, or cultural or additional characteristics of importance to the partners. Additionally, partners need knowledge of what values a person brings to the work professionally and personally, what assumptions the individual holds about the the partners involved or the topics being researched, the beliefs or prejudices one holds that may influence their engagement in the work, and a person’s awareness of how these characteristics influence their perspective. In addition, it also includes an understanding of one’s own expertise (e.g., extensive professional experience, advanced degrees) and how this expertise can be used as a tool to support the partnership or engender certain power dynamics in collaborative work.

Second, partners also need knowledge of the local context, including understanding of one’s organizational mission, climate, and needs as well as your partners’ organization and community context. When partners start working with another organization, they need to get to know how their organization relates to other communities. What is their organization’s reputation in the community, and what is the history of your organization’s work in that community? Partners also need to understand the local context in which their organizations are situated. How does each organization and its work show up and interact with the community? What is the history of your partners’ organizations? What are the latest celebrations, controversies, or advancements within the partners' contexts? Understanding the local context and how the partners’ organizations are tied to interacting with their communities plays a role in the priorities and work of the partnership.

(ii) CONNECTION | Ability to engage with your partners

Partners wishing to effectively work together must be able to engage with one another in productive ways. There are a few ways to think about partners’ engagement together. First, partners engage in *boundary spanning* efforts, defined as the transitions and interactions that occur across different sites of professional practice. These include activities such as practitioners helping to prepare a presentation for an academic conference and researchers serving as thought partners for questions that may fall outside of their core expertise. Boundary spanning requires partners to move outside of their professional responsibilities, which can be challenging on many levels. Consequently, partnership participants need to develop the skills and knowledge to successfully “navigate” differences that may arise due to movement beyond their organizations, cultures, and norms, such as differences in the pace of work or differences in the ways researchers and practitioners think about problems of practice.

Second, partners must have the skill and capacity to engage in regular, ongoing, and sustained *communication* between partners. This includes regularly visiting partners’ “home turfs” to learn about partners’ unique organizational contexts and being able to use discursive strategies to support communication across boundaries. In particular, partners should be able to engage in rearticulating (summarizing and mirroring language used by partners) and “code switching” (explaining one’s meanings in different partners’ terms) when necessary. Relatedly, one can also use discursive strategies to build partners’ understanding of their organizational contexts. This includes questioning (e.g., asking others about their backgrounds) and using storytelling and anecdotes to find common ground between one another and to provide context about partners' organizational settings and personal situations. This also includes actively listening and responding to the needs of partners.

Third, partners must also be able to *generate agreement* with others even when conditions make their levels of authority and status different from one another. Partners can do this in many ways, depending on their level of authority (i.e., a partner with the power or right to make decisions) or status (i.e. a partner with a relative rank in the partnership) in the RPP. For example, partners with authority can control the conditions that encourage certain ideas (e.g., setting the agenda in ways that privilege certain ideas). Partners with authority can also compel partners to take a particular approach (e.g., shifting organizational policies). Partners with status can persuade others about a course of action using their knowledge of research, organizational contexts, and their own experiences to back their arguments. Finally, partners without status or power can collaborate with others to amplify a message, have others (with status/authority) promote their ideas, or enlist others (with status/authority) to intervene on their behalf. Partners with differing levels of authority and status may also need to find compromise in order to move the partnership forward.

(iii) WORK | Research, evaluation, and design skills

Given that co-production of research is a central task taken up by RPPs, it is imperative that partners have the knowledge and skills needed to support it. Moreover, because different problems of practice require different methodologies, RPP partners need to understand different approaches to research.

We identify a number of different skills related to research co-production: asking researchable and actionable questions, creating data collection instruments, conducting data collection activities, analyzing data, and using research in decision-making.

Lastly, identifying, managing, and developing the necessary capacity for RPP work can often pose a significant challenge to partnership stakeholders. As such, careful consideration must be given as to whether (or how much) to build a practice organization's internal capacities to engage in research co-production or to rely on the research partner.

(iv) IMPACT |Integration of research to support production and use

A complementary task to the co-production of research is the integration of research production and use in day-to-day work through planning. Some scholars refer to this concept as knowledge mobilization (KMb). Achieving impact on desired outcomes requires thoughtful and deliberate planning of how research production and use relates to the design, implementation, and study of any initiative. As such, all partners need skills to successfully develop and execute focused plans that integrate research production and use into day-to-day work. Relatedly, integration of research is amplified when partners are able to communicate in multiple formats, such as public speaking (for presenting at researcher- and practitioner-oriented events), writing (both plain language and academic), and digital media (e.g., facilitating webinars, creating videos, posting to social media platforms).

What does integration look like in practice? Research-side partners need to be able to engage practitioners throughout the research process (e.g., research question formation, methodological approach and data collection techniques, data analysis). This includes the ability to ask practitioners questions about their needs and to be responsive to practitioners needs. Relatedly, research-side partners also need to know how and whether research methods can be adapted to fit schools' needs while still being methodologically sound. Finally, research-side partners must be able to develop reports of findings that meet practitioners' needs. This includes shifting from academic language to language that is more familiar to practitioners.

Tools and vignettes for building partners' competencies for engaging in an RPP

Vignette: The Long Game: Mini-coaching Over Time
Laura Wentworth, Stanford-SFUSD Partnership

Vignette: Tying Research Planning to Strategic Planning
Carrie Conaway, Massachusetts Department of Elementary and Secondary Education

Tool: Think-Pair-Share Jamboard to Support the Development of Equity-focused Research Questions
Steven McGee and Randi McGee-Tekula, Chicago Alliance for Equity in Computer Science

Tool: IDEA Data Discussion Protocol
Norma Ming, San Francisco Unified School District-WestEd

Tool: A Syllabus to Build Researchers' Skills in Partnership Research (MOVED HERE)
Michelle Reininger, Stanford University Graduate School of Education

Vignette: Increasing Practice Partners' Skills through Free Workshops (NEW)
Tyler Rogers, Georgia Policy Labs (working in multiple partnerships)

3.1.2 Brokering To Strengthen Partners Key Activity #2

Developing and Nurturing Relationships to Weather Partnering Challenges

One of the main tenets of partnership work is that it is meant to be long term in nature; that is, although partnerships often begin with one small project, RPPs are typically designed to allow for sustained, regular collaboration over time. Given some of the challenges to partnering, long-term collaboration will ultimately test the limits of relationships and partnering. Thus, brokers must work diligently to develop and nurture robust relationships across and between partners to weather these inevitable challenges.

In service of this responsibility, we have identified five key supportive tasks brokers should engage in: (i) facilitating the negotiation of roles; (ii) building trust between partners; (iii) cultivating partnership and project relationships; (iv) resolving conflicts; and (v) coordinating work within and across organizations. Each of these topics is discussed further below.

3.1.2.A Facilitating the negotiation of roles

Partners can come in many different forms, with many different capacities, expectations, and responsibilities. As such, brokers can help facilitate the negotiation of what roles individuals play in the partnership. This may include facilitating identity referencing discourse with individuals both early in the partnership and when new partners are added. During this process, brokers can provide support and guidance to partners as they become comfortable with their new and expanded roles. Brokers must also navigate the dynamics of authority relations and status by treating all partners as equals. Finally, brokers must facilitate role "shifts" when partnership needs change.

3.1.2.B Building trust and mutual respect

Lack of trust between partners can stand in the way of forming a cohesive identity for the partnership itself. Therefore, brokers must help build trust and mutual respect between partners. In order to "jump start" trust-building between partners, brokers can encourage organizations to develop RPPs with those organizations with whom they have pre-existing relationships. Brokers need to provide dedicated time (at the start of the partnership, throughout the partnership, and when new partners are added) for building trust and buy-in with both leaders and front-line staff.

3.1.2.C Cultivating partnership and project relationships

A large part of a broker's job is to establish and expand connections between researchers, schools, and other community organizations interested in similar research. At the partnership level, this might include connecting campus and community assets or bringing in new partners to meet partnership needs. At the project level, this might include creating networks or communities of practice with people relevant to a research project's focus.

3.1.2.D Resolving conflicts

Conflict in partnerships is inevitable; therefore, it is particularly important for brokers to help partners resolve issues. Brokers must be comfortable with daily negotiations over any tensions and have a tolerance for uncertainty. Brokers can help reduce this ambiguity by leveraging established routines and points of commonality between partners in order to move partnerships forward.

3.1.2.E Coordinating work within and across organizations

A key part of brokering is coordinating work within and across organizations to maximize efficiency and reduce overlap. This includes balancing schedules of partners, clearly communicating requirements for completing project goals, tracking partnership projects and prioritizing tasks, and facilitating data and information sharing between partners.

Tools and vignettes for building relationships to weather challenges

Vignette: Superintendent Dinners
Michelle Nayfack, Stanford-Sequoia K-12 Research Collaborative

Vignette: Building Strong Relationships from the Beginning of a Partnership
Lindsay Lanteri, Providence Public School District

Tool: Agenda for a "First Date" Meeting between a Researcher and Practitioner
Laura Wentworth, Stanford-SFUSD Partnership

Vignette: Building Consensus and Trust among Competitors
Daniel Potter, Houston Education Research Consortium

Vignette: Sustaining a Partnership through Periods of School District Central Office Churn
Kylie Klein, Northwestern-Evanston Education Research Alliance

Vignette: Saying No While Preserving a (Research) Relationship
Kylie Klein, Northwestern-Evanston Education Research Alliance

Vignette: Making the Most of Outside Partners in an RPP
Erin O'Hara, Tennessee Education Research Alliance

Vignette: Informal Brokering Moves to Overcome Differences in a Partnership
Katherine Hayes, Los Angeles Education Research Institute

Tool: "First Date" Meeting Agenda to Build Community & Find Common Ground (NEW)
Beth Vaade, Brianne Monahan, and Amanda Kruger, Madison Education Partnership

Vignette: Multi-layered Brokering to Develop New Lines of Research and Programming (NEW)
Beth Polito and Tammy Moriarty, Stanford-Sequoia Collaborative for Leadership

Vignette: Embedding in the Partner School District (MOVED HERE)
Moonhawk Kim, Oakland Unified School District - UC Berkeley Research-Practice Partnership

Tool: A Template for Onboarding New Members (MOVED HERE)
Michelle Nayfack, Stanford-Sequoia K-12 Research Collaborative

Tool: A Framework for Understanding Roles in RPPs (MOVED HERE)
Christopher M. Wegemer, Orange County Educational Advancement Network at the University of California, Irvine

Tool: Checklist of Prerequisites for Building Meaningful Connections between Researchers and Practitioners (MOVED HERE)
Matt Linick, REL Midwest (involving Cleveland Metropolitan School District and American Institute for Research)

Vignette: Changing Educators' Tendency to Avoid Talking about Race and Implicit Bias (MOVED HERE)
Ann Jaquith and Danielle Greene, [Name of partnership anonymized]

3.1.3 Brokering To Strengthen Partners Key Activity #3

Creating the Conditions to Support Research Production and Use

As articulated in the Henrick, et al. (2017) framework assessing the five dimensions of RPP effectiveness, research production (dimension 2) and use (dimension 3) are key activities taken up by RPPs. There are six main tasks that a broker engages in whilst trying to support these efforts: (i) identifying shared problems of practice; (ii) championing the production of actionable research; (iii) facilitating joint contributions to research; (iv) building a culture of research use; (v) mobilizing knowledge; and (vi) using tools and boundary objects to support research production and use. We discuss each of these in greater detail below.

3.1.3.A Identifying shared problems of practice

In RPPs, primary research questions address very particular problems of practice. Brokers are generally in the best position to support partners in developing a deep understanding of the focal problem given their positionality of spanning “R” and “P” boundaries. Supportive activities may include gathering information (e.g., conversations with partners, surveys of stakeholders, needs assessments, literature reviews, findings from previous data collection) to better understand the problem. In addition, brokers will need to mediate between research communities (interested in conducting fundable and rigorous research) and practice communities (who need timely and practical input to make decisions). During this negotiation, brokers manage the issues that risk derailing collaborative work and help the group focus on their common goals or “joint work.” Brokers may need to work with partners to identify new shared problem spaces to continue RPP work if the goals of the practice-side partner change.

3.1.3.B Championing the production of actionable research

Brokers play a key role in driving evidence-based practice by championing the production of actionable research. Key tasks in service of this aim include working with “R” and “P” partners to generate actionable research questions, prioritizing action planning during the initial stages of collaboration by having partners think about how data will inform action throughout the project, and ensuring that decision-makers are involved in the research process so that project findings can be acted on.

3.1.3.C Facilitating joint contributions to research

Both researchers and practitioners contribute to research (i.e., collecting, organizing, analyzing, and interpreting data) and dissemination efforts (e.g., presenting at conferences, publishing). As such, brokers play an important role in facilitating joint contributions to research activities. This may include creating routines so that partners can engage in reflection and planning (for more information on facilitating meetings and other social interactions, see section 3.1.2.B). In addition, brokers can facilitate collective sensemaking by encouraging partners to use their varied perspectives to make sense of an issue. Brokers should also support equitable and productive divisions of labor among partners, paying particular attention to the capacities of different partnership members.

3.1.3.D Building a culture of research use

If RPPs want to produce research that informs practice, partners and partnering organizations need to establish a culture of research use. Brokers encourage partners to be vulnerable with one another when discussing problems of practice and recommendations that come out of research findings. Brokers identify, leverage, or create institutional capability (e.g., championing the creation of an in-house data analytics team) and individual capability (e.g., providing professional development on evidence-based decision-making) to use research.

3.1.3.E Using tools and boundary objects to support research production and use

Brokers can use tools and objects that have value to both practitioners and researchers to support research use and production. For example, brokers may consider using COMPASS-AIM, theories of action, or driver diagrams as tools to support knowledge co-creation processes. In addition, brokers may develop products, attend/host events, or engage networks in an effort to support the use of research findings.

> Tools and vignettes for supporting research production and use
>
> Tool: Am I Supposed to be Doing a Program Evaluation? A Quiz to Navigate Whether to Conduct Research or an Evaluation
> *Lila K.S. Goldstein, Northwestern-Evanston Education Research Alliance*

Tool: An Initial Interview Guide for Writing Policy Briefs
Jessica Holter, Tennessee Education Research Alliance

Vignette: Contrasting Case Studies
Laura Booker and Nate Schwartz, Tennessee Department of Education

Vignette: Research Road Shows
Erin Baumgartner and Jessica Vasan, Houston Education Research Consortium

Tool: Coordinating Collaborative Learning from Professional Conferences
Apryl Clarkson and Monica Hogan, Boston Public Schools

Vignette: Research Priorities Meetings: A Structure for Engaging Partners in Research Development
Katherine Hayes, Los Angeles Education Research Institute

Vignette: Co-Designed research questions and collective analysis to build shared ownership in a research-practice partnership (NEW)
H. Alix Gallagher, CORE-PACE Partnership

Vignette: Creating an Accessible Practitioner Brief from an Academic Research Paper (NEW)
Beth Vaade, Brianne Monahan, and Amanda Kruger, Madison Education Partnership

Tool: Conjecture Mapping to Guide Collaborative Work (NEW)
John Russell, Analyzing Instruction in Mathematics using the TRU framework (AIM_TRU) Partnership

Tools: Agendas and Guidelines for Developing and Supporting Research (NEW)
Norma Ming, Devin Corrigan, Michelle Maghes, Alec Kennedy, QuynhTien Le, Kathleen Bradley, San Francisco Unified School District and its Multiple Partnerships

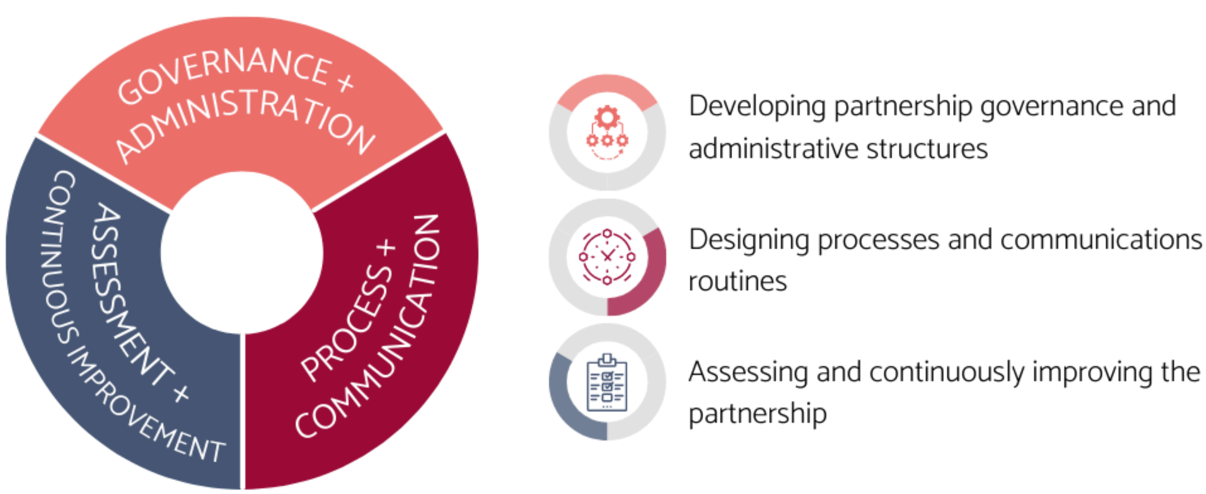

FIGURE 3. Broker Responsibilities to Strengthen *Partnership*

3.2 Brokering to Strengthen the Partnership

Next, we describe the collection of activities brokers need to strengthen the *partnership* itself, which center around building and maintaining the necessary *infrastructure* for the partnership to thrive. In our case, infrastructure refers to the underlying processes, routines, and protocols that shape how the partnership operates. Infrastructure helps define the system within which the RPP will function; although it is often invisible once it is implemented, it is critical to ensuring the RPP runs smoothly.

While there are a number of infrastructural components that together result in the partnership, we focus on three areas here that are especially important for brokers to lead: (i) Developing partnership governance and administrative structures; (ii) Designing processes and communications routines; and (iii) Assessing and continuously improving the partnership. We provide further detail for these activities in the subsequent sections.

3.2.1 Brokering To Strengthen The Partnership Key Activity #1

Developing Partnership Governance and Administrative Structures

Brokers play a crucial role in accelerating the various aspects of partnership development, whether they are in a supporting role or leadership position in the RPP. They are often the people tasked with "getting it done", given their central role in linking both the research and practice sides, and as such, can often find themselves in a position to plan for future infrastructural needs as well. Accordingly, brokers serving at all levels will want to think through how they will facilitate the development of important governance and administrative structures to best serve partners' needs. This includes determining who is involved in partnership work; creating a common vision and related supporting documents; implementing and maintaining organizational structures; and establishing partnership identity and culture. Each of these topics is further discussed below.

3.2.1.1 Determining who is involved in partnership work

An important task for a broker is determining who will be involved in the partnership. For example, this may include engaging decision-makers in research, practice and/or policy spaces in an assessment of current needs, and an evaluation of whether embarking on a partnership is appropriate. If a partnership approach is determined to be appropriate, brokers may facilitate discussions with decision-makers about which organizations have interest, resources, and capacities to support the development of a partnership. Once potential partners have been identified, brokers may engage research and practice partners in conversations to develop their interest in the partnership and to explore shared research interests, needs, and capacities.

Traction and buy-in is a key criterion for determining partners as a means for promoting sustainability. As such, brokers may also seek to influence leaders (i.e., those who are capable of amassing organizational resources, or maintaining support of the work over time) to endorse or sponsor the partnership.

Partners can come in many different forms, with many different capabilities, expectations, and responsibilities. As such, brokers facilitate the negotiation of what roles individuals play in the partnership. This may include facilitating identity referencing discourse with individuals both early in the partnership and when new partners are added. During this process, brokers can provide support and guidance to partners as they become comfortable with their new and expanded roles. Brokers must also navigate the dynamics of authority relations and status by treating all partners as equals. Finally, brokers can play an important supportive role in facilitating shifts in identities and tasks as individual partners grow and evolve. For example, there are times when researchers may play more of a role as an implementer or practitioners may get involved in data collection. Brokers can identify when these shifts in roles are happening and help partners manage and understand the practices and routines involved in new roles.

3.2.1.2 Creating a common vision and related supporting documents

Lack of agreement on purposes within the whole partnership can inhibit partnership efforts. As such, brokers need to engage partner representatives in a process of creating a common vision. For brokers, this may include engaging partners in setting partnership priorities, aligning resources, determining capacities, and focusing attention on common goals.

While RPPs can build upon existing models and approaches, they must nonetheless engage in a process of developing, adopting, and putting into practice their own partnership agreements that outline the vision and goals for the partnership. For brokers, this may include supporting the creation of a formal memorandum of understanding (MOU), data use agreements (DUA), and plans integrating the research into each organization's work to strengthen the overall partnership. In order to form mutually beneficial partnerships, brokers can work with partners jointly to develop an MOU that outlines the basic terms (such as roles and responsibilities) for any partnership activities. Partners may also have concerns about sharing data. These concerns should be taken seriously, and brokers should work together with community partners to develop a DUA that meets partners' requirements.

While partnership documents, like MOUs and DUA, can help to formalize governance structures, they are not a panacea. Partnership documents can only work in tandem with the actions of partners, which play an equally important role. Brokers have to stay actively involved and build relationships between partners if success is to occur. This is described in more detail in the earlier section on developing relationships and trust among partners.

3.2.1.3 Implementing and maintaining organizational structures

Before an RPP is established, potential partners must first examine their own organization's readiness to engage in a partnership. This includes thinking about what organizational resources partners can offer to support the partnership. For brokers, this might include identifying, leveraging, or creating tangible resources for these purposes. For example, brokers may identify existing organizational processes and structures (e.g., providing dedicated space, time, and technical resources) that may need to shift in order to support partnership work. Brokers can also promote the development of structures that organize and preserve institutional memory for partnership work. This may include creating information and knowledge management structures that store and transmit organizational learning like a library of research reports or a partnership management tool like Salesforce for tracking interactions and meetings. It may also include cultivating structures and processes that allow for frequent communication between partners and engaging in efforts to decrease "organizational churn" and increase continuity (e.g., having practitioners who take part in partnership activities move upward in leadership structures). In addition, brokers can create processes or tools to support the partnership, such as developing partnership "roadmaps," which preview tasks for each stage of the partnership.

Brokers will want to think through how to facilitate the development of macro-, meso-, and micro-level structures to support the partnership. At the macro level, individuals at the highest hierarchical positions (e.g., board members) may participate in steering committees. They can act in an advisory capacity for decision-making throughout the entire partnership and take on the roles of operational management. For example, this may include priority setting, evaluating and approving research project proposals, and obtaining funding and resources. At the meso-level, individuals at upper-organizational levels (e.g., district and school administrators with decision-making authority) may participate in committees that develop and implement mechanisms to drive the partnership deeper. At the micro-level, practitioners "working on the ground" (e.g., classroom teachers) may participate in communities of practice to share and discuss educational research. The individual brokers should be embedded at all levels of the system to serve as points of contact between different levels of the partnership.[1]

In addition to structures that spread power, structures that promote shared decision-making and address issues of equity within the partnership are necessary for collaboration. For brokers, this might include helping partnering organizations to develop a shared understanding of equity (e.g., through facilitating self-reflection, leading interactive discussions, and creating action steps that lead to a more inclusive partnership). In addition, where possible, brokers can reduce hierarchy and promote joint leadership within the partnership. For example, this may include having representatives from research and practice organizations serve as co-chairs on committees or co-lead research projects. Finally, brokers must manage issues of status and power dynamics that come with the different racial, cultural, and professional identities of participants and ensure that all partners have a voice in the partnership. This can include focusing on and elevating voices from practice and other underrepresented groups during regular partnership meetings and other interactions. For example, brokers can provide positive recognition to school partners (e.g., ensuring the practitioners get credit for progress) and allow community agencies and schools to retain control over the release of findings.

3.2.1.4 Establishing a project or partnership identity and culture

A research-practice partnership is typically composed of two or more organizations, each with their own identity. We can define organizational identities as the norms and patterns of behavior that guide how their members think and act. To be effective and sustainable, partnerships need to develop an organizational identity and culture independent of those of the individual partners and partner organizations. Partnership identity formation—moving from "we" the individuals and organizations to "we" the partnership—is likely one of the most challenging areas of partnership work, as it requires individuals in both organizations to work differently than their organizational, professional, and personal norms would typically expect. Brokers can accelerate partnership identity formation in a number of ways. They may advocate for policies, practices, or resources that embed the importance of the partnership in partner organizations. Brokers may also create opportunities for front-line educators to take on leadership and brokering roles to expand their influence. And finally, brokers may keep partners engaged in the partnership identity by regularly promoting and building the profile of the RPP by communicating to partners the ways in which their time and efforts lead to teaching and learning improvements.

Tools and vignettes for developing partnership infrastructure

Tool: Chicago Public Schools Data Dictionary Wiki

Adam Corson, Chicago Public Schools, University of Chicago (Consortium on School Research, Chapin Hall, Crime and Education Labs, Poverty Lab), Northwestern (Office of Community Education Partnerships, School of Education and Social Policy), American institute for Research

Tool: Data Use Agreements

Jorge Ruiz de Velasco, Ph.D., JD, Youth Data Archive, John Gardner Center at Stanford University

[1] While many education RPPs focus on macro and meso perspectives, some involved in community-based research solely work at the micro levels.

Vignette: Developing a Research Agenda
Joy Lesnick, Philadelphia Education Research Consortium

Vignette: Rethinking an Annual Grant Competition
Beth Vaade and Amanda Kruger, Madison Education Partnership

Tool: Can I Get That in Writing? Codifying Researcher Commitments
Lila K.S. Goldstein, Northwestern-Evanston Education Research Alliance

Vignette: Establishing Partnership Identity through the Co-creation of a Partnership Agreement
Devin Corrigan, Dr. Norma Ming, and Dr. Emily Ozer, San Francisco Unified School District (SFUSD) and the University of California, Berkeley (Berkeley)

Vignette: Establishing a Partnership Identity and Culture
Ashley Pierson, Maria Cristina Limlingan, Tim Speth, Molly Branson-Thayer, and Gail Joseph, [Name of RPP blinded]

3.2.2 BROKERING TO STRENGTHEN THE PARTNERSHIP KEY ACTIVITY #2
Designing Processes and Communications Routines

A second piece of the invisible infrastructure that brokers should consider leading includes developing the processes and routines related to communications among stakeholders groups. Brokers are well positioned to take on the design of such efforts, given their ability to cross boundaries at both an organizational and individual level. For example, some of the necessary infrastructure a broker may need to consider include opportunities that enable partners to collaboratively consider, evaluate, explore, and learn together. Moreover, brokers often shape social interactions between current, new, or future partnership members through the establishment of common routines and the development of trust and empathy. Strategies for accomplishing these aims include developing external (i.e., across partner organizations) and internal (i.e., within a partner organization) communication pathways, as well as facilitating meetings and other social interactions between partners. We elaborate on these below.

3.2.2.1 Developing communication pathways
Long absences in communication between partners can result in confusion and stifle the progress of the RPP. As such, external communication pathways (i.e., the ways in which information flows across partner organizations) are necessary to sustain the RPP and to be responsive to partners' needs. Brokers can develop formalized communication processes, such as scheduled meetings, regular newsletters, or special events, to share information across organizations and roles. In addition, brokers can act as shepards between systems, as they are often responsible for communicating about partnership progress to stakeholders across the organizations.

Internal communication pathways are the ways in which information is exchanged between individuals within one partner organization. Brokers can identify, leverage, or create organizational structures (e.g., dedicated departments) to act as hubs and to leverage knowledge. Moreover, brokers can support internal information exchange by ensuring that dedicated time and space is provided to make sense of new information.

3.2.2.2 Facilitating meetings and social opportunities

While the strategy described above is about the processes required to establish pathways for communicating, this strategy centers on the routines necessary for partnerships to utilize those pathways. Planning, facilitating, and documenting regular partnership meetings is a key activity for all types of RPPs; in our experience, brokers typically lead this effort. For example, they can articulate clear goals for the meeting, help develop an initial agenda, use a task-based approach (i.e., focus on definable steps that need to be taken to address the objectives of the partnership), and ensure that meetings start and stop on time. In addition, brokers may also focus on taking meeting notes and making sure that relevant information (e.g., research reports) is shared among partners.

In addition to providing an underlying structure to meetings, brokers can promote an environment of inclusion and respect for all contributions. This can be done by setting norms at the beginning of meetings that specifically foster inclusion, mediating and facilitating interactions (e.g., watching for who's talking and who's not, interjecting and redirecting with dominators and interrupters), and using sub-groups to allow for individuals to share in a less intimidating environment. Brokers should also address negative emotions (such as frustration and blame) during meetings and facilitate and allow for time for individuals to discuss and work out differences. Finally, brokers also foster an inclusive and collaborative process by paying attention to the location of meetings. For example, locating meetings at a school or community organization may help to build a sense of community ownership (instead of a sense that the meeting is university- or researcher-led).

Tools and vignettes for designing social structures and routines

Tool: Quarterly RPP Facilitation Memos

Dr. Callie Edwards, The Reedy Creek Magnet Middle School Center for the Digital Sciences/Friday Institute for Educational Innovation (RCMMS/FI) Research-Practice Partnership

Tool: Weekly Project Check-ins with Standard Agendas

Annie Taylor, Partnership: Boston P-3 Partnership

Tool: Conference Seating Chart

Laura Wentworth, Stanford-SFUSD Partnership

Tool: Partnership Conference Agenda

Joy Lesnick, School District of Philadelphia and REL Mid-Atlantic

Vignette: Gathering, Networking, and Learning about Research across Multiple Organizations

Michelle Hodara and Hella Bel Hadj Amor, Oregon Graduation and Postsecondary Success Alliance

Vignette: Annual Symposium with Stakeholders: Reflecting, Connecting, Planning

Mirela Blekic and Karen Thompson, Oregon Department of Education and Oregon State University English Language Learner Partnership

Vignette: Co-Developing a Playbook of Practitioner Innovations (NEW)

Barbara Condliffe, Ellie Warner-Rousseau, and Rachel Leopold, New York City's Lab for Equity and Engagement in School Enrollment (the E3 Lab)

Vignette: Developing anti-racist focused research and practice around shared values (NEW)

Socorro Cambero, Doron Zinger, and Naehee Kwun, UC Irvine CalTeach and OCEAN Partnership

Vignette: Intentionally Centering Partner Voices and Priorities in the Design of a Countywide Networked Improvement Community (NEW)

Lora Cawelti, Erica Van Steenis, Verenisse Ponce Soria, Guadalupe Mendoza, June Ahn, and Richard Arum, UCI Orange County Educational Advancement Network (OCEAN) and Leaders, Educators, and Practitioners Supporting Foster and Housing Insecure Youth

Vignette: Tiered Level of Engagement for Teacher Partnerships (NEW)

LuEttaMae Lawrence, John W. Szura, Kreshnik Begolli, Jennifer Minko, Andres Bustamante, and June Ahn, University of California Irvine (UCI) OCEAN: UCI STEM Learning Lab and Santa Ana Unified School District (SAUSD) Partnership

Vignette: Building Structures in Meetings for Researcher and Practitioner Joint Work (NEW)

Zareen Poonen Levien and Devalin Jackson, The Stanford-SFUSD Partnership

Tool: Using Visual Collaboration Tools for Remote Partnership Work (NEW)

John Russell, Analyzing Instruction in Mathematics using the TRU framework (AIM-TRU) Partnership

Tool: Supporting Communication About the Partnership with a Newsletter (NEW)

Erin Baumgartner and Christy Dafonte, Houston Education Research Consortium-Houston Independent School District (HERC-HISD)

Tool: A "No-Surprises" Research Release Process (NEW)

Beth Vaade, Brianne Monahan, and Amanda Kruger, Madison Education Partnership

Tool: Communications Strategy Brief (MOVED HERE)

Lisa Sall, University of Chicago Consortium on School Research—Latino Policy Forum

Tool: Visuals Representing the Partnership (MOVED HERE)

Laura Wentworth, Stanford-SFUSD Partnership

3.2.3 BROKERING TO STRENGTHEN THE PARTNERSHIP KEY ACTIVITY #3

Assessing and Continuously Improving the Partnership

Ongoing assessment and reflection of a partnership's efforts are crucial if one is to understand "what's working" and where further attention is needed. We see these aspects of the infrastructure playing an important role for continuously improving the partnership over time, especially in terms of strengthening both partnership processes and initiatives. In this regard, brokers can support these efforts by designing partnership accountability systems that detail how the RPP's progress towards its aims is monitored and evaluated. They can additionally create feedback loops that provide partners with information about the RPP in real time so that appropriate adjustments can be made. To support the feedback process, brokers can identify, leverage, or create structures that allow for bi-directional communication. Finally, brokers can involve partnership members in an ongoing process of reflection and evaluation in order to identify and address areas of improvement.

Putting some of these ideas into practice, some partnerships have used the framework for assessing RPPs written by Henrick and colleagues (2017) to guide their evaluation efforts, for example. In this piece, the authors identify five dimensions of RPP effectiveness, which include 1) building trust and cultivating partnership relationships; 2) conducting rigorous research to inform action; 3) supporting the partner practice organization to achieving its goals; 4) producing knowledge that can inform educational improvement efforts more broadly; 5) building the capacity of the participating researchers, practitioners, practice organizations and research organizations to engage in partnership work. The authors additionally name and describe a number of indicators that may demonstrate progress on each of the dimensions. One way in which a broker can apply some of these concepts towards assessing and continuously improving the partnership is by creating the space for partners from all sides of the partnership to collectively reflect on their work, organized by these five dimensions of effectiveness. For example, a broker might collect observational notes or informal interviews with partners that are later synthesized and shared with the whole team for reflection and discussion. Based on this, a broker might then develop a plan moving forward, focusing on the areas that partnership identified as ripe for improvement.

Tools and vignettes for assessing and reflecting on the partnership

Tool: A Developmental Framework to Assess Growth in an Education Leadership Partnership
Manuelito Biag, The Improvement Leadership Education and Development (iLEAD) Network

Tool: Are We a Partnership Yet? (Diagnostic Rubric)
Bill Penuel and Dan Gallagher, Critical CS Ed and CS for All: RPP Applicants

Vignette: Contributing actionable and timely feedback to professional learning facilitators (NEW)
Coralie Delhaye, Hilda Borko, Jonathan Osborne, Emily Weiss, Craig Strang, Improving Practice Together

Tool: Developing a Portrait of the RPP (Reflective Activity) (NEW)
Kelly McMahon, Jon Norman, Dave Sherer, The Hewlett Foundation's Deeper Learning + Diffusion of Innovation and Scaled Impact RPPs

Tool: Interview Protocol to Assess RPP Health (NEW)
Maggi Ibis, Dan Frederking, and Carrie Scholz, PUMP-CS RPP

Using this Handbook

We envision the framework and cases in this handbook being used by a number of audiences in different ways. In terms of audience, the first community we envision using this handbook are current and aspiring RPP brokers. We anticipate they will use the tools and vignettes in these cases in real time during their day-to-day work. Three of the four handbook authors get regular requests for ideas and resources to support the activities within RPP brokering. In the future, we will start by sharing this handbook with current and aspiring brokers as a starting point.

Another audience for this handbook is the growing number of university instructors or faculty who are teaching courses on working in research-practice partnerships. These courses are usually a mixture of the theory of RPPs and practical advice and skill-building needed for researchers to work in RPPs. This handbook provides specific, practical guidance on how to engage and support RPPs and could be used by faculty and instructors as exemplar activities needed to support RPPs. While the cases are shorter in nature, they may be used with the case method within a course. Hammond's (2007) description from Harvard University's Public Education Leadership Project of the case method calling "for discussion of real-life situations that leaders and managers have faced… put[ing] yourself in the shoes of the managers, analyze the situations, decide what you would do, and come to class prepared to defend and support your conclusions." While our cases do not provide the larger context in RPP work, they describe real-life situations in the vignettes and the specific tools that brokers have used to address RPP challenges. Faculty could use these cases to center discussions of how aspiring researchers, practitioners, or brokers could navigate the challenges of RPPs in education.

Finally, we see a growing number of non-profit organizations, state or school district departments, and university centers that bring on new staff using the handbook to train these staff on how to engage in RPPs. This handbook could be a resource for these organizational leaders to share with their new hires that could provide some of the tools, frameworks, and approaches needed to effectively work in RPPs, and especially for new hires that may eventually take on roles as RPP brokers.

Acknowledgements

We would like to thank all of the amazing contributors that shared their stories, tools, vignettes, and lessons learned with us so that we, in turn, could share them with you (please see full list of contributors on pages 33-34). Our own thinking and understanding about "who" a broker is and the activities they take on was greatly informed by these field-facing experiences. We are excited to keep learning together, and hope that new brokers find a home here as well.

We would also like to thank all of the participants that came to each of our brokers-focused sessions at the various NNERPP Annual Forums, beginning in 2017, for their thought partnership and engagement with our initial thinking of this role. These important conversations laid the groundwork for what was to become this resource.

Finally, we would like to thank Sara Slaughter, our incredible copyeditor, for her terrific help in getting this handbook polished and ready for sharing.

Appendix A: Development of the Framework

Our aim was to create a framework that outlines the varied activities needed by brokers working in education RPPs. The framework was informed by: 1) practice-based reflection, 2) stakeholder feedback, and 3) a systematic scoping review of the literature.

Practice-based reflection

The first two co-authors engaged in practice-based reflection to explore and explain their experiences as brokers in education RPPs. The purpose of the exercise was to integrate theory and practice by identifying important aspects of brokering in practice (as identified from the first two co-authors' real-world brokering experiences). These experiences were then cross-referenced using published academic evidence to explain and interpret the co-authors' practice-based reflections. For the literature check, the first two co-authors did not conduct a thorough review of literature related to brokering in education RPPs, but instead looked for research that showed how practices (identified through reflection) were discussed in the context of the relevant academic literature.

Stakeholder feedback

Over the last few years at the NNERPP Annual Forums (the annual meeting for NNERPP members and friends), the first two co-authors shared draft concepts of an RPP brokering framework with attendees and jointly explored three questions: 1) What does brokering look like across education research-practice partnerships situated in different characteristics and contexts?, 2) What brokering activities strengthen *partnering*?, and 3) What brokering activities strengthen a *partnership*?. More specifically, during the 2019 NNERPP Annual Forum, the authors presented a draft framework and invited attendees to address the above questions based on one part of the brokering framework, splitting into six small groups. Each small group generated a list of descriptors for the brokering skill. During the 2020 NNERPP Annual Forum, the authors presented a revised version of the framework based on the ideas shared during the 2019 meeting, then asked participants to break into small groups and share ideas for tools and vignettes to be featured in cases about the brokering skill in the handbook.

Development of draft framework

After the practice-based reflection, literature check, and work with participants at the NNERPP Annual Forums, a draft version of the framework was developed. The draft framework identified six activities for brokering in education RPPs, grouped into two categories:

- Activities to strengthen *partners*: supporting research use and production, building relationships to weather challenges, and building individuals' knowledge and skills; and
- Activities to strengthen *partnerships*: developing partnership infrastructure, designing social structures, and establishing partnership identity and culture.

To further test (i.e., identify potential gaps) and refine the framework, the first two co-authors invited the third author to conduct a systematic scoping literature review to identify and synthesize what is known about knowledge brokering in education RPPs. After the literature review, the authors added an additional characteristic to the category of activities to strengthen partnerships: assessing and reflecting on the partnership.

Systematic Scoping Literature Review

The third author undertook a systematic scoping literature review. A four-step approach was used to identify relevant literature. First, keyword[2] searches of research databases[3] and search engines[4] were undertaken to identify potential peer-reviewed and grey literature. Second, targeted searches of RPP-focused websites[5] were conducted to identify potential sources. Third, reference lists of the documents identified for inclusion in the review were scanned to maximize the inclusion of relevant studies. Finally, the authors of documents identified for inclusion in the review, along with known experts in the field, were contacted to identify additional articles to include.

In total, 531 unique citations were identified from searches of databases, search engines, and targeted websites. The third author reviewed the title and abstract for the retrieved sources to identify papers for full-text retrieval. Sources were excluded if they did not provide empirical evidence (qualitative or quantitative) on knowledge brokering in education RPPs. In addition, the date of publication was limited to January 1, 2000, to September 9, 2020. To ensure reliability, a co-author screened the titles and abstracts of 10% (n=53) of all compiled citations. Based on the review of titles and abstracts, the third author selected 45 documents for full-text retrieval. All full-text papers were read by the third author, and if found suitable, they were included in the review. Once again, a coauthor screened 10% (n=5) of the sources identified for full-text retrieval to ensure reliability.

Eighteen (18) documents were included from searches of databases, targeted websites, and search engines. Fourteen (14) additional records were included through scanning references and expert elicitation, bringing the total number of documents included in the review to 32. Data from documents were extracted by the third author using a standardized data collection form, with 10% (n=3 documents) of the data checked for accuracy by another author. Data were extracted using a combination of apriori (based on the six activities identified from the practice-based reflection and stakeholder feedback) and open coding (to identify concepts from the literature that were not captured by the draft framework).

Development of Case Studies

Identification of Tools and Vignettes

For the document review, the first two co-authors asked participants who attended the NNERPP Annual Forum session on brokering to submit cases for the handbook describing the use of tools or vignettes where the activities of brokers are enacted. Most of the participants in the NNERPP Annual Forum are members of research-practice partnerships in the education sector and play the role of a broker from within either a practice organization like a school district, state agency, or non-profit or a research organization like a university or research non-profit. During the 2020 NNERPP Annual Forum, participants identified 40-50 tools and vignettes exemplifying the brokering activities needed to support partnering and partnership. In addition, the third author identified almost 30 tools while conducting searches for the systematic review, 2-3 of which we added to the cases.

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[2] Boolean search string: (research practice partnership) AND (broker OR intermediary OR boundary) AND (education OR school OR district)

[3] Education Source, ERIC, Educational Administration Abstracts, Educators Reference Complete, Sociological Abstracts, JSTOR, Academic OneFile, Web of Science, Scopus

[4] Google, Google Scholar, DuckDuckGo, Bing, Microsoft Academic Search

[5] SERP, R+P Collaboratory, National Center for Research on Policy and Practice (NCRPP), W.T. Grant Foundation RPP Microsite, National Network of Education Research-Practice Partnerships (NNERPP), National Center on Scaling Up Effective Schools (NCSU)

Case Development

The first two co-authors asked members of NNERPP to write and submit case studies that explore real world challenges brokers experience in education RPPs. We invited submissions from over 40 participants or contacts based on the ideas they recorded during the brainstorm session at the 2020 NNERPP Annual Forum and through other NNERPP meetings related to brokering. Based on our invitations, we received over about 50 submissions. After a first round of reviews where we edited for common case features like word count, structure, and key content, we ended up with about 40 cases. After a round of edits by case authors and the second round of reviews by the first two co-authors, we ended with 42 cases. These cases included at least two additional cases of tools we discovered during the literature review.

Appendix B: Literature Chart

	BROKERING TO STRENGTHEN PARTNERSHIPS				BROKERING TO STRENGTHEN PARTNERING		
Citation	*Developing Partnership Infrastructure*	*Designing Social Routines*	*Establishing a Partnership Identity & Culture*	*Assessing and Reflecting on the Partnership*	*Building Conditions for Research Use and Production*	*Building Relationships to Weather Challenges*	*Building Individuals' Knowledge and Skills*
Akkerman & Bruining, 2016	X	X	X	X	X	X	X
Benichou et al., 2019					X		X
Brown, 2017	X	X	X	X	X	X	X
Buskey et al., 2018	X		X			X	
Campbell et al., 2017	X	X	X	X	X	X	X
Coburn et al., 2008	X				X	X	X
Davidson & Penuel, 2020	X	X		X	X	X	X
Denner et al., 2019	X	X	X	X	X	X	X
Farrell et al., 2019		X	X		X	X	X
Farrell et al., 2018	X	X	X	X	X	X	X
Farrell et al., 2017			X		X	X	X
Farrell et al., 2019		X			X	X	
Fenwick, 2007	X					X	X

Fenwick, 2004	X	X	X			X	X
Firestone & Fisler, 2002	X	X		X	X	X	X
Furtak et al., 2016	X	X			X	X	
Harrison et al., 2019	X	X		X	X	X	X
Hartmann & Decristan, 2018	X	X		X	X	X	X
Hopkins & Penuel, 2019					X	X	
Hopkins et al., 2018		X			X	X	
Johnson et al., 2016				X	X	X	X
Klar et al., 2018	X	X				X	
Kronley & Handley, 2003	X	X	X	X	X	X	X
Lasater, 2019	X			X		X	X
Lasater, 2018	X	X		X	X	X	X
Miller, 2007	X	X			X	X	X
Miller & Hafner, 2008	X	X	X		X	X	X
Muñoz-Muñoz & Ocampo, 2016	X	X		X		X	X
Nelson et al., 2015	X			X	X	X	X
Thompson et al., 2019					X		X
Wilcox &	X	X			X		X

Zuckerman, 2019							
Wilcox et al., 2017		X		X	X	X	X

Appendix C:
References for Records Included in Systematic Review

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About the National Network for Education Research-Practice Partnerships (NNERPP)

The National Network of Education Research-Practice Partnerships (NNERPP) aims to develop, support, and connect partnerships between education agencies and research institutions in order to improve the relationships between research, policy, and practice. NNERPP helps partnerships: develop and share best partnership practice, synthesize research findings and build knowledge, produce comparative research and facilitate cross-partnership collaborations, and advance policies and system reforms. Further information about NNERPP can be found on their website: http://nnerpp.rice.edu/.

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