Partnering to Scale Instructional Improvement

A Framework for Organizing Research-Practice Partnerships

Carnegie Foundation for the Advancement of Teaching

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Executive Summary

For decades, researchers and educators alike have been caught in waves of reforms that sought to change the quality of teaching and learning at scale. The press to make instruction more engaging has been amplified by calls to make our educational systems more effective and equitable. While progress has been made in identifying practices and conditions that promote deeper learning in some classrooms, knowing how to scale ambitious instructional reforms equitably remains an open question.

Research-practice partnerships (RPPs) emerged as a promising strategy for generating new knowledge and building new capabilities for improving teaching and school systems through research. Defined as "a long-term collaboration* aimed at educational improvement or equitable transformation through engagement with research," partnerships are "intentionally organized to connect diverse forms of expertise and shift power relations in the research endeavor to ensure that all partners have a say in the joint work."[1] What this definition doesn't capture, however, is the complexity of standing up an RPP.

RPPs seeking to improve instructional practice at scale face dual learning imperatives in that partners must learn how to (1) manage and confront the complexity involved in trying to change instruction at scale and (2) develop a model of partnership that is equipped to the task. The pursuits of these learning imperatives suggests a need for ongoing learning over time. Referring to this as partnering rather than partnership more accurately reflects the active learning needed to address the likely realities of bringing the worlds of research and practice together to confront complexity and drive change.

This paper presents a framework and a reflective tool for partnering for instructional improvement at scale. The framework is composed of four elements: (1) the commitments partners make to each other to solve the problem they set out to solve, (2) the structures an RPP puts in place so that partners can learn together, (3) the expertise it initially brings together and continues to develop as it learns about improving instruction, and (4) the social learning capabilities the RPP develops so that partners can learn together. The interactions among the components create the conditions for learning through partnering that, in turn, influence whether a partnership could be up to the task of achieving equitable instructional reform at scale.

* For the sake of clarity, it should be noted that every RPP has an origin and that newly forming research-practice efforts begin from a stance that aims to be long-term and ongoing.

Introduction

For decades, researchers and educators alike have been caught in waves of reforms that sought to change the quality of teaching and learning at scale. The press to make instruction more engaging has been amplified by calls to make our educational systems more effective and equitable. While progress has been in identifying practices and conditions that promote deeper learning in some classrooms, knowing how to scale ambitious instructional reforms equitably remains an open question.

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In 2017, the William and Flora Hewlett Foundation launched the Hewlett Deeper Learning and Diffusion of Innovation and Scaled Impact Network. This network included 10 RPPs with diverse designs, strategies, and scopes of work – each with the goal of implementing and scaling deeper learning. The Carnegie Foundation for the Advancement of Teaching was charged with fostering learning across this network through regular in-person and virtual gatherings.

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Over the course of four years, the RPPs engaged in this community sought to learn from and with one another. This framework for organizing RPPs is one product of this learning community. Because RPPs are challenging to initiate and sustain,[3] this framework seeks to provide additional guidance for becoming a long term collaborative partnership that works towards improving instruction at scale. Its development is the result of a set of study activities conducted by a team of researchers and practitioners over two years that included an interative process of design, feedback, and revision.* This process used data collected from the Hewlett Deeper Learning network, literature on RPPs and organizational theory, and the practical experiences of the authors working in and with various research-practice partnerships, continuous improvement efforts, and system-level instructional reforms.

STRUCTURE OF THE REPORT

This report proceeds in the following steps:

1. Description of the challenge of scaling instructional improvement
2. Literature review of RPPs and organizations focusing on the challenges faced by RPPs
3. Introduction of the framework, which is composed of commitments, structures, expertise, and social learning.
4. A brief example of a reflective tool to be used for assessing partnering in an RPP.

* The team includes three lead authors and six team members deliberately assembled to draw on diverse and relevant expertise.

Instructional Improvement at Scale

For decades, there have been calls from parents, educators, researchers, policymakers, and students to change the quality of instruction in the United States' public school system. Central to this argument is the belief that the typical instruction most students receive is insufficient for preparing students for the 21st century. Their future will likely demand that they possess a range of skills to navigate a more technologically advanced world for jobs that may not even exist in the present. Such skills include critical thinking, problem solving, communication, and collaboration complimented by growth mindsets, persistence, and the ability to master new content domains. While traditional classroom instruction emphasizes rote memorization, teaching to the test, and mile-wide but inch-deep content coverage, there are calls for more classrooms across schools and districts to enact practices in which all students are encouraged to learn by doing; explore topics in depth; and produce, instead of receive, knowledge.

To create an environment for deeper learning, teachers engage students in rigorous tasks and deliberate practice so that they thoroughly understand a topic. In addition, deeper learning marries students' motivation and identity as part of the processes of developing mastery.

Advocates refer to this type of learning and associated methods as "deeper learning." The William & Flora Hewlett Foundation defines deeper learning as learning in which students "... develop content knowledge, alongside skills of critical thinking (and) collaboration. They learn how to learn and develop growth mindsets."[4] To create an environment for deeper learning, teachers engage students in rigorous tasks and deliberate

practice so that they thoroughly understand a topic. In addition, deeper learning marries students' motivation and identity as part of the processes of developing mastery.[5] This kind of teaching has been called "intellectually authentic instruction"[6] or "ambitious instruction."[7] While there are pockets of classrooms where this type of instruction exists, it remains rare to find schools in which deeper learning is the norm.[8]

Researchers have found that to transform teaching across classrooms, sometimes within the same school, it is essential to attend to the organizational supports—e.g., school leadership, ties to parents and community, student-centered climate, professional capacity–which in turn leads to improved student outcomes.[9] To develop professional capacity that leads to widespread changes in instruction there needs to be an "instructional guidance system" that helps teachers know what and how to teach.[10] Developing such systems has been the work of those studying professional communities, professional knowledge for teaching, relational trust, instructional leadership, district conditions, and policy environments. Yet, it still remains difficult to get consensus on what good pedagogy looks like and how to create the system that would allow us to move towards that vision.[11]

After decades of research on reforms and implementation intended to change instruction at scale, knowing how to transform our schools and improve typical instruction for all students is still not entirely clear.[12] There remains a problem with learning how to change instruction reliably and equitably at scale. This paper seeks to address this concern by describing how RPPs are a potential strategy with a focus on learning in and through partnerships, rather than adding to the piles of research on discrete practices. With this shift, RPPs could be best positioned to aid in understanding the change processes needed to transform instruction at scale.

Research-Practice Partnerships

In recent years, RPPs have grown in popularity, in part as a result of increased funding and resources available for researchers and practitioners to engage in research together. Advocates for RPPs argue that these partnerships offer a way to produce relevant knowledge for educators, build continuous improvement capabilities, provide information to guide decisions, and develop worthy plans for pursuing changes.[13] Through a growing body of research on RPPs, there is a general understanding that the work conducted by an RPP can positively impact students.[14] For example, Word Generation, an intervention developed in the Strategic Education Research Partnership (SERP), a partnership with Boston Public Schools, was shown to have positive impacts on middle school students' academic language.[15] There is also evidence that RPPs' research informed district leader strategic decision making towards instructional improvement.[16]

There is also more research on the challenges of implementing RPPs. For example, researchers and practitioners come from different cultural worlds,[17] so they may lack a common language.[18] Their worlds have different incentives and ways of working that can create barriers for partners to overcome in order to work together.[19] The divide between these two worlds suggests that boundary crossing and brokering may be necessary to develop and maintain partnerships.[20] Partners, then, become responsible for serving as

Through a growing body of research on RPPs, there is a general understanding that the work conducted by an RPP can positively impact students. There is also evidence that RPPs' research informed district leader strategic decision making towards instructional improvement.

brokers while also creating the requisite conditions for doing the work.[21] Other challenges may arise because the work RPP partners want to do often exists in context of political dynamics or may be subjected to constraints placed on them by funders, organizational leaders, or community contexts.[22]

Despite the challenges, or perhaps because of them, there are increasing resources available to support RPPs. One such resource is the National Network for Education Research-Practice Partnerships (NNERP) that includes 53 member RPPs as of 2021. NNERP supports for RPPs include a comprehensive website of resources,* a yearly meeting for its membership, and a quarterly magazine.

Educational researchers developed a framework for assessing the effectiveness of RPPs[23] that outlines expectations for the outcomes expected, or a standard for being an effective RPP. But more research is needed in to know how to achieve these outcomes especially in light of the challenges known to starting and sustaining RPPs. In particular, for researchers and practitioners interested in engaging partnership there are few guides for developing a long-term, mutually beneficial partnership. It can be challenging to learn how to partner effectively from others' stories of being in a partnership.[24] RPPs focused on changing systems are building novel learning organizations and may require clear guidance that does not need to be translated to their uniquely difficult tasks and contexts; the framework introduced in this report aims to address this need.

* The William T. Grant Foundation also has a website of resources at https://rpp.wtgrantfoundation.org/.

Partnering Requires Learning

A key challenge when partnering to change instruction at scale occurs as partners confront the reality of complexity in education systems, which is often grounded in the ambiguity and wickedness of educational problems, the varied and context-specific nature of educational knowledge and capabilities, and the interdependent and nested elements that influence efforts to intervene in educational systems.[25] Complexity in education makes it difficult to predict the invisible problems that will emerge as partners collaborate in developing evidence and generalizable knowledge about their experiments, designs, or implementation efforts to change teaching and learning.[26] System-level change has many factors that are often not evident at the start of a project;[27] it is not until a partnership tries to intervene in a system that the actual factors at play become clear.

To confront and manage this complexity, educators are increasingly turning to continuous improvement methods. These methods rely on iterative feedback loops to achieve some ideal outcome and acknowledge that learning by doing is a central feature of achieving improvement. However, while continuous improvement methods hold great promise for addressing the inherent complexity of changing instruction at scale, they are rooted in industry and manufacturing that have different incentives, organizing principles, and ways to link outcomes to work.[28] The main critique of using these methods to improve quality in education is that they do not adequately account for the political or relational dimensions involved in transforming educational systems.[29] Further, there are few researchers, evaluators, or educators that have been trained to adapt continuous improvement methods in educational settings, which creates a unique challenge of needing to learn to learn in collaborative arrangements.[30]

Taking complexity into consideration, partnerships that aim to change instruction at scale will encounter ill-defined political problems, unfriendly relations, capability gaps, and failures. They will likely encounter a landscape that has been wrestling with reforms for some time, and they will have to adapt based on what they discover as they try things. Any partnership's success or sustainability will depend upon its ability to learn in and through its context such that unanticipated bumps actually serve as resources for learning how to improve and transform systems.

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Partnering Over Partnership

RPPs seeking to improve instructional practice at scale face dual learning imperatives in that partners must learn how to (1) manage and confront the complexity involved in trying to implement deeper learning and (2) develop a model of partnership that is equipped to the task. A partnership, therefore, must be dynamic enough to build an active team that can accomplish an ambitious goal such as making deeper learning standard instruction found in all schools in a district, or state. The pursuits of these learning imperatives suggests a need for ongoing learning over time. Referring to this as partnering rather than partnership, which suggests a static organization, more accurately reflects the active learning needed to address the likely realities of bringing worlds together to confront complexity and drive change.

The framework that follows addresses the process of partnering to learn how to improve instruction at scale. Described are:

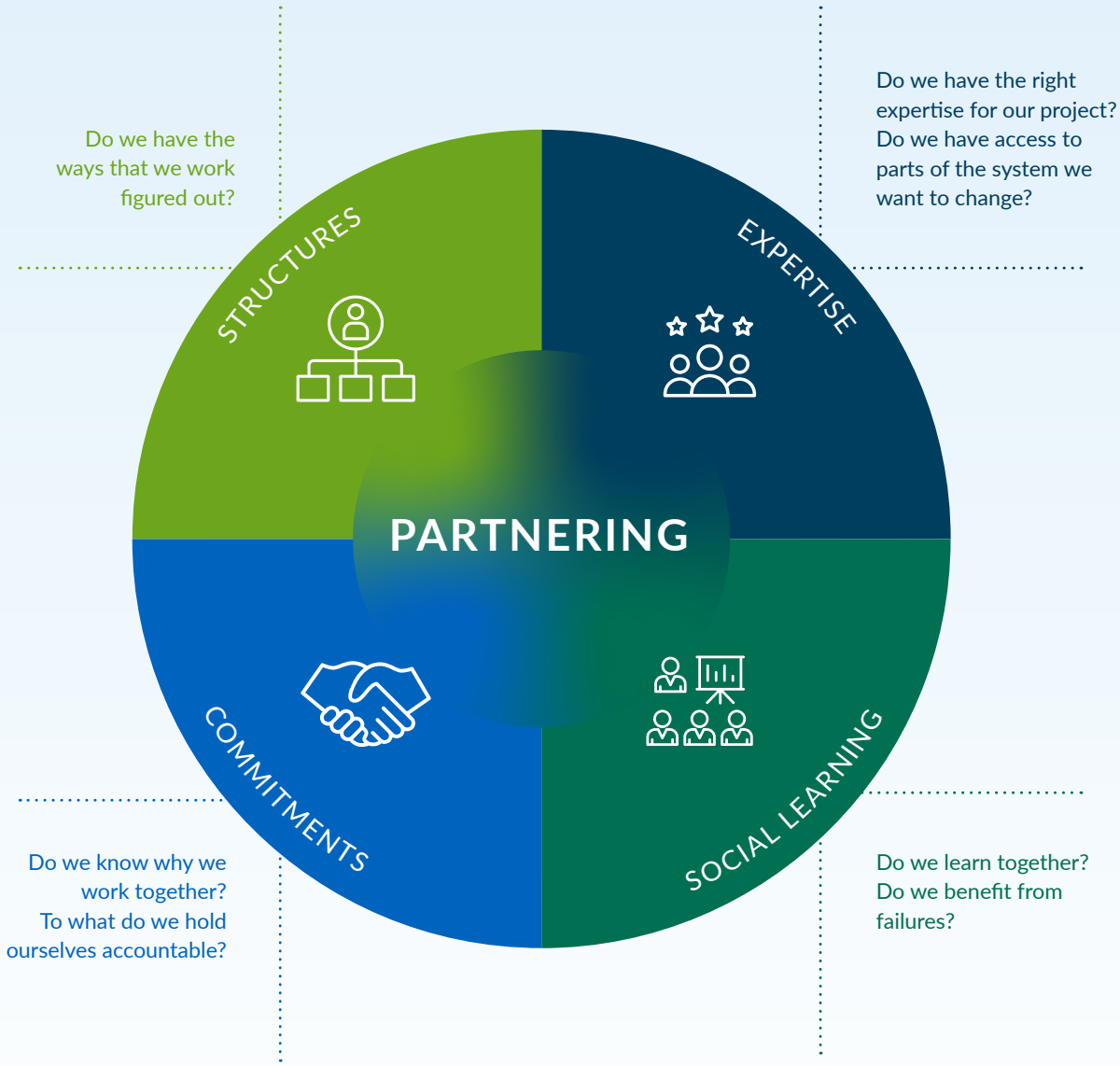
- An outline of the framework's components
- Explanations and examples of each of the components
- A description of the components may relate to one another
- A questionnaire that could support RPP's planning, evaluations, or mid-course reflections

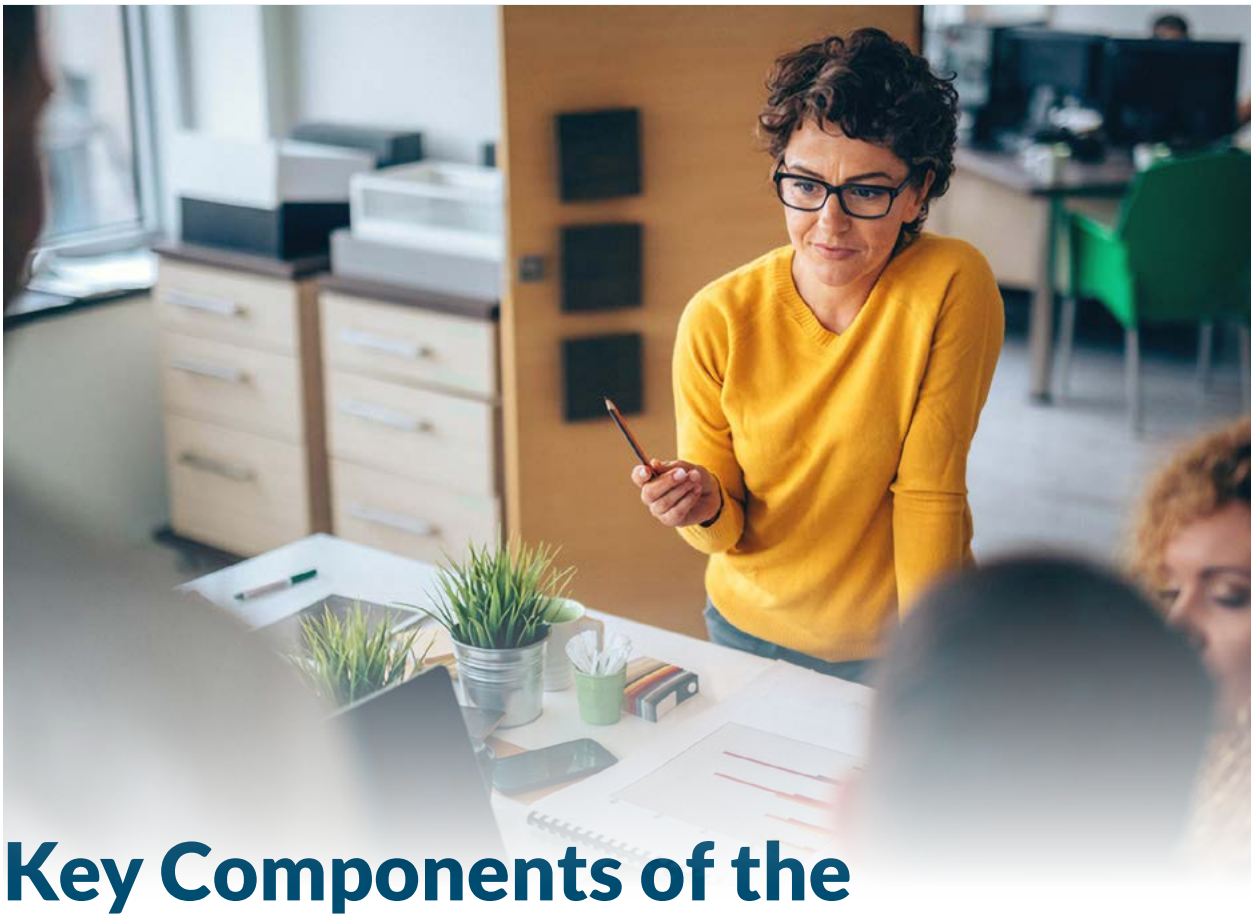
A Framework for Organizing Research-Practice Partnerships

The framework for partnering for instructional improvement is made up of a set of four components: (1) the **commitments** partners make to each other to solve the problem they set out to solve, (2) the **structures** an RPP puts in place so that partners can learn together, (3) the **expertise** it initially brings together and continues to develop as it learns about improving instruction, and (4) the **social learning** capabilities the RPP develops so that partners can learn together. When taken together as a set of interactions, these components create the conditions that influence partners learning in and through their partnering.

As shown in Figure 1, the individual components should be considered a part of an integrated and interactive set that defines the action of partnering, which requires attending to RPP commitments, structures, expertise, and social learning. The quality of partnering will inevitably relate to an RPP's ability to achieve instructional improvement at scale. The requisite learning needed to achieve its aims will depend upon the strength of each component separately and the interactions among the components. If one or more of the components are not intentionally attended to, partnering will be out of balance, which will impact the likelihood that the partnership will be able to achieve its aim of improving instruction at scale. It is likely that over the lifetime of a partnership and at different points in time, some components will be more of a priority than others.

Figure 1. The Framework of Partnering for Instructional Improvement at Scale





Key Components of the Framework for Partnering for Instructional Improvements at Scale

Component 1: Commitments

In a 2020 study, a "sense of joint goal commitment" was more important to successful outcomes and overcoming barriers in collaborative work than perceived efficiency or lowered transaction costs.[31] At their core, commitments are a social contract. In the context of RPPs, they are the roles and responsibilities that each member agrees to. They are the expectations RPP members have of themselves and one another. Commitments can, and are, held at both individual and organizational levels. While they are internally owned, commitments are strongest when coupled with some measure of accountability. Accountability can be in the form of formally articulated agreements and memoranda of understanding or, more informally, through relational bonds, social pressure, micropolitics, or cultural norms of the group. RPP commitments may express themselves in multiple ways, such as consistent and sustained engagement of RPP members in collective activities of the RPP, shared language around goals and purpose, or continued use across members of key artifacts, protocols, or norms.

Commitment through shared purpose and goals

All RPPs have stated purpose and goals for their work, so all members must know what they are and feel responsible for their achievement. A commitment to the goals and purpose of RPP work that is held only by one partner is not a partnership with mutuality. Each partner must integrate the RPP goals and purpose into their own organizational and individual efforts, and each member owns the responsibility for achieving the purpose and goals, and understands their role in this endeavor.

EXAMPLE OF COMMITMENT THROUGH SHARED PURPOSE AND GOALS

The Oklahoma City Education Research Alliance (OCERA) is a collaboration between Oklahoma City Public Schools (OKCPS), Generation Citizen, and the Center for Information and Research on Civic Learning and Engagement (CIRCLE). The partnership aims to address the deeper learning challenge through supporting the implementation of collaborative project-based learning (CPBL) via the development of implementation and study of CPBL practices across 7th, 10th, and 12th grades in OKCPS.

Members of OCERA were all bought-in to CPBL as an intervention that would build necessary skills and capacities for future work in more civically engaged learning required in high school. As one staffer in the Oklahoma City Public School system noted "… that vision, the alignment of CPBL, and what CIRCLE and Generation Citizen are doing with where we are headed, just made our partnership align perfectly. There had been bumps in the road, obviously, but honestly, they [Generation Citizen] were headed right where we [OKCPS] were headed."

Commitments through shared identity, values, or cultural norms

Committing to purpose and goals requires taking an external marker and making it collectively owned. Identity, values, and norms are more deeply relational and come out of moving towards shared mindsets, behaviors, and ways of viewing and orienting towards the work. To come to a shared identity is to understand the nature of the collective and what one's role and relationship to that collective and its members are. It is to see one as a part of the whole. Likewise, shared values involve finding connecting points among the individual or organizational values with those that the collective jointly espouses and melding of these values. Because values are deeply held propositions, the inability to find connection between individual and collective values will likely result in tension and disruption. If this is the case, agreement on shared norms—that is, how interaction between members is regulated and conducted—can be a good first step when shared values or identity are not fully in place. Building shared identity, values, or cultural norms can help shorten the distance between one's internal sense of responsibility and accountability to that of the collective.

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EXAMPLE OF COMMITMENT THROUGH SHARED IDENTITY, VALUES, OR CULTURAL NORMS

BEST RPP is a collaboration between JFF (Jobs for the Future), New Hampshire Learning Initiative (NHLI), the National Center for Innovation in Education, and the New Hampshire Department of Education, with dissemination support from KnowledgeWorks. The partnership's deeper learning intervention sought to use the state's Performance Assessment for Competency Education system to develop and test performance assessments for work-study practices (i.e., deeper learning competencies).

Apart from JFF, the members of BEST RPP had been working together to affect education reforms in New Hampshire for some time. JFF was able to come into the partnership because it, like the New Hampshire members, understood the work on the ground and the value of practitioners in knowledge creation. Similarly, the practice partners appreciated the value of research and evidence. The group started with a couple of different and informal names, but BEST emerged as a way for all involved in the RPP, including teacher and district leads, to own the endeavor jointly as a shared identity. All partners valued student-centered learning principles and shared innovation mindsets from the start.

Commitment through shared artifacts or objects

Another indication of commitment can be found in the artifacts or objects that all members of a RPP use in their work. Such boundary objects may be intervention tools, meeting protocols, memoranda of understanding, or other shared processes or procedures. They can speak to a tacit agreement among members to conduct work in a specified manner. It should be noted that it's not the existence of the objects that demonstrates commitment, but the ongoing and consistent use, value, and importance members place on the objects that indicates their commitment.

EXAMPLE OF COMMITMENT THROUGH SHARED ARTIFACTS OR OBJECTS

The Student-Centered Accountability Program (S-CAP) is a partnership of district superintendents in Colorado, Generation Schools Network, Battelle for Kids, and Colorado University-Denver. The RPP aims to address the deeper learning challenge through implementing an accountability system focused on the whole child and engaging a network of districts in continuous improvement activities to support this implementation.

S-CAP partners have a shared vision of student-centered accountability that materializes through the peer System Support Review (SSR) process. All members share the review process and, through a peer-assessment regime, communicate the importance and use of the SSR to assess each district's capacity and competency to create whole child learning environments.

Developing and maintaining shared commitments is an ongoing and continuous process that occurs throughout the life of the RPP and happens both at the individual and group level. Evidence of processes and procedures by which each individual and organization holds itself (and others) accountable are how such commitments are maintained. Commitments should be continuously assessed to understand if they are truly in service to increased learning and understanding of the RPP and not to alternative objectives or priorities.

Component 2: Structures

If commitments are about the relational aspects of RPP members to each other and the work of the RPP, structures are the concrete forms and mechanisms through which commitments are enacted. Structures enable RPPs to coordinate work, collaborate, address conflict, and learn in an organized fashion. They are the intentional ways an RPP meets, communicates, distributes resources, creates plans and timelines, and assigns work. Structures will vary from RPP to RPP and may have centralized or decentralized features. However, structures should help optimize collective learning, problem solving, and continued effort. They may be static, but they also may evolve, adapt, and grow as the RPP identifies new ways in which it needs to organize work.

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Structures for communicating and meeting

Communication is a key function of ensuring all members of an RPP are aware of goals, understand key timelines and deliverables, and can problem-solve effectively. Communication is also the key function of creating shared identity and maintaining relational ties. Structures for communication may take multiple formats (e.g., email, chat channels, discussion lists, phone calls, video conferencing, collaborative documents) and may use different tools and technologies. Communication structures may be very formal with specific formats and tools used for specific purposes, or they may be ad hoc depending on individual partner preferences and needs. Meetings and communications may have a specific format such as agendas, protocols, ground rules, and norms. They may also have defined purposes (e.g., knowledge management, socializing, decision-making, problem solving, networking) and happen in varied contexts (e.g., online, sites of instructional improvement, dedicated retreats, member offices).

EXAMPLE OF STRUCTURES FOR COMMUNICATING AND MEETING

The Reflective for Deeper Learning RPP is a partnership between Anaheim Unified High School District and Inflexion, a nonprofit research and technical assistance firm. The RPP aims to address the deeper learning challenge by supporting the development of school cultures that implement the deeper learning competencies known as the 5Cs: creativity, collaboration, communication, critical thinking, and character/compassion.

The RPP has a designated project manager who ensures the flow of communication between members. Also, the leadership team has regular monthly virtual meetings, and semi-annual in-person meetings. These meetings are critical to creating shared norms and identity. For example, they will undertake a status debrief of the RPP, include a reading or protocol to push their thinking, get updates on the research team's findings, and use the meeting to structure dialogue and discussion.

Structures for knowledge management

While knowledge management rests on communication structures, partnerships that seek to learn and solve new problems require additional systems to organize, share, and act on information and insights gained through the joint work of the RPP. Without intentional knowledge management structures, RPPs that seek instructional improvement through social learning are likely to be less productive as they expend energy and time finding key information, recalling important details, or locating critical data. Partners need to know where, when, and by whom data and information will be collected, stored, accessed, shared, and analyzed. Questions that should be considered include:

- How will sense be made of the information?
- What processes, procedures, or protocols will be used?
- What guides or navigation tools are needed to support members of the group as they create understanding and know-how?
- Who will set up, manage, and organize knowledge-sharing processes and tools?

EXAMPLE OF STRUCTURES FOR KNOWLEDGE MANAGEMENT

Working with multiple districts and teachers across New Hampshire, BEST RPP members used several tools to manage knowledge assets and ensure all members had access to key documents, tools, and processes. To organize professional development assets, NHLI set up a Library Guide for all key assets. Research tools and protocols were centralized on a Google site, and collaborative performance assessment design with Teacher Leads and educational researchers used a Google drive. Sharing products and tools from the research was done through the BEST for the Future website.

Structures for decision-making

Like knowledge management, decision-making structures also rest on communication systems, but they also require specific protocols and agreements regarding which decision-making structures will be used. These structures may be formal or informal, centralized or decentralized, and they may shift over time. In terms of decision-making structures, questions to be considered include:

- Will the group work by consensus, majority rule, or some other decision-making schema?
- Are there varied levels of decision-making and types of engagement around decision-making needed (e.g., raci matrix)?
- Does authority over the decision fluctuate depending on what domain the decision is made in?
- How are disagreements or conflicts handled? Is there a formal process for resolving them?
- Are there domains over which the RPP does not have authority to make a decision? What structures are needed to secure authority to act and move forward?

EXAMPLE OF STRUCTURES FOR DECISION-MAKING

The Student-Centered Accountability Program has a formal board composed of the founding members of the RPP. Key decisions like funding, reports, membership and changes to the SSRs are made by the board. There are also sub-committees that track the progress of the RPP using a Balanced Scorecard approach that translates goals into performance objectives assign responsibility for leading certain aspects of the work using a RACI model. This formal structure helps a group of leaders better manage the inherent conflict and tension in making decisions and moving forward.

Component 3: Expertise

Expertise matters for supporting instructional improvement at scale, particularly in the context of RPPs. Research conducted on the MIST RPP—an eight-year research-practice partnership with four large urban districts investigating their efforts to enhance middle school mathematics instruction—found that the presence of specific forms of expertise was perhaps the most critical component to improving instructional practice at scale. This is reasonable given the learning demands required to improve the practices of teachers, instructional coaches, and school and district leaders.[32] This challenge points towards the need for a distributed model of expertise and affirms the approach for developing a common culture that follows the "contours of expertise,"[33] or the ways in which people in different roles possess unique knowledge that aids in accomplishing the goals of an organization.

The presence of specific forms of expertise was perhaps the most critical component to improving instructional practice at scale. This is reasonable given the learning demands required to improve the practices of teachers, instructional coaches, and school and district leaders.

Research in other fields on partnership expertise describes distributed and relational expertise as two key types of proficiency that support partnership effectiveness.[34] Distributed expertise on partnerships recognizes that expertise exists across individuals, their tools, environments, and networks.[35] Relational expertise[36] allows partners to recognize and respond to other professionals' views while at the same time drawing on the knowledge from their own practice. This aligns with the indicator of education RPP effectiveness in which RPP members "recognize and respect one another's perspectives and diverse forms of expertise."[37]

It is important to note that there are three issues to consider when examining expertise within a partnership. One relates to who is at the table. When gathering a team of people to work together in an RPP, each member brings a set of skills and expertise that can contribute to the success of the partnership. Therefore, the expertise that is needed must be identified so that partnerships can be intentionally designed to bring diverse expertise together. The second issue relates to the role partnerships have in supporting the development of shared expertise across members from a variety of professional roles related to the education field (e.g., classroom educators, professional development providers, education researchers, district and school personnel, curriculum developers). The third issue relates to the new expertise the RPP is aiming to develop through the work of the partnership.

In the case of the RPPs in this report, the problem of supporting deeper learning at scale has not been solved, so an important outcome of this work is the development of new expertise on what it takes to equitably support deeper learning at scale. Across instructional improvement RPPs, there are three categories of expertise that are useful for this work:

1. **Expertise for deeper learning and improvement**, which includes specific forms of expertise to support the enactment of the RPP's theory of improvement
2. **Expertise for RPP partnership**, which includes specific forms of expertise to support the healthy internal functioning of the RPP partnership
3. **Expertise for context**, which includes specific forms of expertise for navigating the social, political, and organizational context of the RPP

In what follows, the use of each of these different forms of expertise in instructional improvement RPPs will be explained and examples of how they are utilized across the 10 Hewlett Deeper Learning RPPs will be shared.

Expertise for deeper learning and improvement

When considering the expertise needed to improve and scale deeper learning instructional practices, it is useful to ask what expertise is needed to work successfully towards the project's goals related to deeper learning. This includes expertise in deeper learning goals for students and, in relationship to those goals for student learning, expertise for deeper learning instructional practices and leadership practices that support teachers' development of such practices. Many instructional improvement RPPs need expertise in designing and co-developing tools and products to support the implementation of deeper learning in schools. In addition, instructional improvement RPPs utilize expertise in continuous improvement. This expertise brings an understanding of how continuous improvement efforts can inform the partnership's progress and help it use evidence to adjust when necessary. This includes research expertise for assessing the work as it happens, supporting implementation efforts, and integrating research into practice. This expertise for improvement can be developed and supported through partnership activities, particularly through social learning activities discussed later in this report.

EXAMPLE OF EXPERTISE FOR DEEPER LEARNING

The Reflective for Deeper Learning RPP members from AUHSD and Inflexion bring a wealth of knowledge on deeper learning. Prior to the partnership, Inflexion developed a framework for student readiness and had experience implementing this framework in other district contexts. Similarly, members from the AUHSD team brought expertise related to transforming a school through developing a shared vision statement emphasizing classroom practices to support the development of student learning capacities. Each of the partners saw in the other a similar ethos towards instructional change in schools. This collective sense of what constituted deeper learning and how it spreads inside schools allowed the partners to feel that they each possessed expertise relevant to realizing deeper learning inside schools.

Expertise for partnership

When considering the expertise needed to attend to the functioning of the partnership, it is useful to ask what expertise is needed to collaboratively work and learn together to accomplish the goals of the project. RPPs are unique in that they bring together people from different organizations to work together on complex problems. In a sense, RPPs become their own informal organization that requires leadership, structures, and processes to function well.

For the Hewlett Deeper Learning RPPs, distributed leadership expertise was valuable for instructional improvement RPPs in that leaders who adopted a distributed leadership perspective understood that their partnership success depended on the learning and collaboration of multiple stakeholders. For these RPPs, leadership practices were generally distributed across multiple individuals comprising a leadership team that typically included representatives across the organizations participating in the RPP. Useful expertise for RPP leadership teams includes proficiency in strategic planning, project management, supporting adult learning, and coordinating learning across groups.

EXAMPLE OF EXPERTISE FOR PARTNERSHIP

The Student-Centered Accountability Program has structures, routines, and processes in place to support the partnership work. These include a leadership board that holds monthly calls and quarterly meetings, and sub-committees for (1) network learning and growth, (2) sustainability, (3) scalability, and (4) structures and processes. There is a role within the partnership for coordinating across sub-committees, structuring agendas, tracking deadlines, and supporting the organizational needs of the partnership.

Expertise for context

When considering the expertise needed to scale deeper learning practices across different contexts, it is useful to ask if the RPP has access to the parts of the instructional system it seeks to improve. When aiming to scale, the key types of expertise needed include proficiency in developing relationships; creating collaborative environments; productively engaging stakeholders; and communicating, disseminating, and amplifying research and information across a wide range of constituents and organizations.

In addition, instructional improvement RPPs need expertise in understanding local, state, and national contexts and must have access to key stakeholders. This often included navigating challenging political contexts, brokering relationships between diverse groups, and attending to issues of equity.

Finally, one of the challenges of sustaining partnerships over time is funding. RPPs need access to expertise in locating funding opportunities, understanding the goals of funders, and writing and administering grants.

EXAMPLE OF EXPERTISE RELATED TO CONTEXT

The Oklahoma City Education Research Alliance prioritizes understanding the context of Oklahoma City Public Schools. There is a locally-based member of Generation Citizen on the team who stays connected to what is happening in schools through school visits to observe classes and attend teacher meetings. The OCERA partnership includes OKCPS district leaders who have the access and knowledge needed to coordinate training, negotiate funding, and provide the valuable political supports needed to keep initiative moving forward in a productive manner.

In order to acknowledge and use all of the different types of expertise that exists across a team, it is critical to develop an RPP culture that insists on the mutual respect that acknowledges and uses the skills and expertise of all team members and recruits new team members when necessary expertise is missing. Taking the time to unpack, document, and understand the types of expertise needed to accomplish the aim of the RPP, then spending time understanding the expertise each member brings to the table, is an essential step for making sure that the right people are at the table to accomplish the goals of the RPP.

Component 4: Social Learning

Social learning is a fairly common yet rarely defined term that refers to learning through interactions with others.[38] Learning can occur through participation in groups or communities,[39] but not all groups or communities are good at learning worthwhile lessons. Rather, the quality of learning results from careful attention to the relationships and culture of a group.[40] Partners, then, face multiple social learning imperatives, including learning how to be a good partner within the partnership and to learn about the target interventions and system transformation to which partners are committed to realizing. Social learning involves both aspects of learning: (1) to partner and (2) through partnership.

Learning to partner

It is fairly typical for partnerships to emerge from mutual agreement when potential partners have something in common. The blend of interests and diverse expertise, with potential funding within reach, may bring people together around the table, but this is not necessarily the same as being partners.[41] "People do not simply learn *about*, they also learn, as the psychologist Jerome Bruner (1996) suggests, *to be*. Learning, that is, doesn't just involve the acquisition of facts about the world, it also involves acquiring the ability to act in the world in socially recognized ways."[42]

Learning doesn't just involve the acquisition of facts about the world, it also involves acquiring the ability to act in the world in socially recognized ways.

In creating partnerships, researchers, practitioners, and intermediaries navigate multiple cultural, professional, and workplace differences.[43] While these differences are often seen as a benefit of partnership, increasingly partners need to build bridges, or cross their cultural boundaries, in order to jointly work together. Partners identify goals, but the joint work involves evolving plans, attempts, research, and learning that ensues through interactions and deliberate efforts to reach the goals or solve the problems that the partners committed to when they set out to work together. This is more than simply having roles based on expertise to and dividing the work. To accomplish joint work that is complex and exists in a system, partners need to cultivate genuine collaboration that comes from crossing boundaries or engaging in boundary practices. Learning across the boundaries involves specific practices, routines, motivations, and habits of mind that make it easier for partners to develop new, shared knowledge related to their problem.[44]

The intentional efforts to cross boundaries and build relationships with partners will influence the quality of joint work. By saying that these efforts are intentional does not mean that they are necessarily formal efforts like writing a memo that outlines the conditions of collaboration; rather, these may be improvised interactions in which partners signal to each that they connect with each other across

boundaries. Through interactions and activities, partners may create a collective identity by developing shared meanings of spaces, norms, or ways of working together.[45] This shared view comes from understanding and valuing each other's differences. The partners develop shared knowledge and mental models that influence motivations and meaning making. This shared identity and culture of partnership, in turn, influences how partners frame and interpret problems. It also creates the context of what they are able to learn together from failed attempts, or small wins, as the partnership moves along the contours of problems involved in system reform.

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EXAMPLE OF SOCIAL LEARNING TO PARTNER

The InquiryHub is a partnership between the University of Colorado-Boulder and Denver Public Schools. First established in 2007, this partnership is focused on promoting more equitable teaching and learning through the development of curriculum using co-design methods. The partnership used its funding from the Hewlett Foundation to develop biology and chemistry units aligned to the Next Generation Science Standards (NGSS), as well as professional learning workshops that promote learning science phenomena through storytelling and student-driven inquiry techniques.

Over its lifetime, the InquiryHub experienced a lot of turnover of staff on the project, as well as turnover in district partners who have worked on various projects. Yet, the partnership centers relationships among members as being central to their work together. To accomplish this, they engage in routine meetings and at each meeting there is always space on the agenda for finding out about each other's lives. Relationship building is explicit, as is, caring for members as individuals and valuing each other's humanity. One member explained, "it's religious checking in with people" to support one another. Another shared, "we're culture first."

The emphasis on relationship building means that they spend time to understand the professional demands that each have and the ways that such demands may influence their partnership work. With greater understanding, and strong relationships, they problem-solve together to get past common hurdles that can hold up other partnerships.

Learning through partnership

Accepting the general premise that instructionally focused research-practice partnerships are formed in order to learn about changing instruction at scale, it can be expected that, within their plans for joint work, partners will encounter invisible problems that could not have been anticipated. With this orientation of the problems that a partnership will encounter, they will need to learn together about how best to use research and relevant evidence to learn as work unfolds.

There are several types of partnerships that engage in research practices and use methodologies that allow for learning while doing the work. For example, design-based studies contrast to traditional methods that try to transport a "best practice" to new contexts without consideration for the real world complications that exist in local instructional systems.[46] Design studies seek to develop relevant, situated and practical know-how that contends with and considers fully local conditions with their unique complexities.[47] This type of experiment is theory-based, iterative, and requires novel use of evidence in real time to make sense of experiments so that failures are actually learning opportunities.[48]

Networked improvement communities promote the use of practical measures and research evidence to allow partners to know, in real time, if they are making progress with their plans for improvement. Continuous improvement methods can be particularly useful in theory-based learning, where conjectures about the drivers of change in a system can only be verified through active diagnostics and small, rapid cycles of testing where evidence is gathered that either confirms or challenges initial thinking about the relations between problems and solutions.[49]

Both design based studies and networked improvement communities rely on reflective examination of data and evidence to track progress, adapt plans, and recognize success while partners are in the midst of trying to transform classroom instruction or systems related to instruction. This may involve intentional efforts to create instruments and data collection strategies that would allow members of the partnership, regardless of the members' home institutions, to reflect on data and evidence together with the aim of reflecting on: *How are we doing? If we have failed, what can we learn? What can we try again?*

Social learning refers to this kind of reflective practice being shared across partners as they consider and reconsider how they understand the problem they are trying to solve and the efficacy of their interventions as they move to new contexts.[50] The degree to which the partners engage collectively in reflective practice increases the likelihood that the partnership will be able to address unanticipated challenges that will surely emerge in changing instructional systems.[51]

The description of social learning as a component of partnering is likely the part of this framework that strays farthest from how other scholars have described educational research-practice partnerships. Here, conceptions of partnership designs or descriptions of ways partnerships successfully overcome challenges are extended[52] to focus specifically on learning *in* and *through* interactions between partners and the degree to which these interactions promote reflective practice in action.

EXAMPLE OF SOCIAL LEARNING THROUGH PARTNERSHIP

In order to learn through partnership, the InquiryHub created what they referred to as "common infrastructures" to create synergies across projects and allow them to keep learning together. While it was not officially part of the work of their Hewlett-funded project, the InquiryHub used exit tickets in classrooms with students to understand how students' were experiencing the units that they were developing. They were able to use the data from exit tickets to create data displays for teachers to understand students' experiences in the classrooms while teachers were testing their new curriculum units. The district staff and researchers would make sense of the exit ticket data together to judge their progress with developing culturally relevant materials.

Conclusion

This report lays out a framework for partnering that can help partners meet the necessary learning challenges that will emerge as they undertake changing instructional systems to make deeper learning available to more students. Yet, to achieve the improvements they seek, partners will likely have to be entrepreneurial and apply for multiple projects.[53] This better aligns with emerging work that points to five principles of RPPs:[54]

1. They are long-term collaborations.*
2. They work toward educational improvement or equitable transformation.
3. They feature engagement with research as a leading activity.
4. They are intentionally organized to bring together a diversity of expertise.
5. They employ strategies to shift power relations in research endeavors to ensure that all participants have a say.

These principles align well with the partnering to scale instructional improvement framework. For example, for collaborations to become sustained, long term collaborations, they will need shared **commitments**. **Structures** are needed to support joint work and research across projects. **Expertise** is an important organizational component that allows the RPP to keep learning as it develops deeper knowledge about the problems, the locality, and solutions needed to achieve scale. Finally, **social learning** provides opportunities for the shifting and changing of participants within an RPP that will

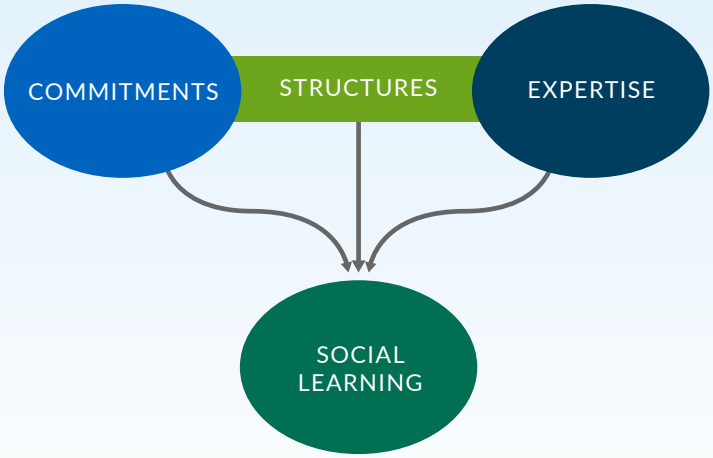
* We understand that every RPP has an origin and that newly forming research-practice efforts begin from a stance that aims to be long term and ongoing.

certainly change over the years as a long-term partnership engaging meaningfully and learning together.

The theory of how the framework components interact productively is still in development. Figure 2 represents how these components interact based upon the observations, analyses and input from the 10 RPPs in the Hewlett Deeper Learning portfolio. These observations suggest that these components are not equal forces in RPP performance. To be an effective and productive RPP, achieving improvement goals will involve shifting emphases and priorities. Every RPP in the Hewlett cohort had varied evidence of the four components with greater or lesser strength. Cross cohort comparison suggests that improvement focused RPPs need to create contexts for social learning and problem solving in order to make progress amid the complexity involved in their pursuits. Without social learning, an RPP may make some changes in the contexts where they work, but it is less certain that such changes will be improvements that push to scale.

To be an effective and productive RPP, achieving improvement goals will involve shifting emphases and priorities.

Figure 2. Theory of Interaction: Interdependencies in Components for Partnering



However, to achieve productive social learning, RPP members need to be committed to the goals of the RPP endeavor, and the right mix of expertise needs to be in place to achieve the envisioned improvements in new contexts as interventions scale. There was evidence in the Hewlett cohorts in which the expertise was lacking in a critical area for the improvement envisioned. For example, RPP's seeking to make changes in classroom instruction without having classroom teachers as partners experienced improvement barriers because knowledge and expertise from their local contexts were not considered in the intervention design. Likewise, without commitments, RPP members are unlikely to engage authentically with each other. For example, a districtwide intervention without support and buy-in from senior central office staff may encounter delays and lack of resources in RPP work.

Structures, then, create the bridge between commitments and expertise, so they may be leveraged towards social learning. The structures allow RPP members to understand how they can propel both their commitment and expertise towards social learning and overall goals of the RPP. Examples of structures include how partners will learn across expertise, what communication platforms and

norms will be used, who will do what, and how adjustments will be made. This theory of interaction is open for continued thinking, refinement, and reconceptualization.

Working in partnership to transform schools and school systems requires learning, flexibility, and a willingness to make mistakes and learn forward.

Working in partnership to transform schools and school systems requires learning, flexibility, and a willingness to make mistakes and learn forward. This has been evident through the hard work and perseverance by the RPPs in the Hewlett Deeper Learning and Diffusion of Innovation and Scaled Impact Network in their efforts to equitably scale deeper learning.

This Framework of Partnering for Instructional Improvement aims to contribute to the RPP field by providing guidance around how to organize the joint work of RPPs doing this work. Attending to how an RPP explicitly organizes itself to develop and sustain shared commitments, structures, expertise, and social learning opportunities will support RPPs in overcoming challenges and, ultimately, achieving their goals. This framework is intended to contribute to the conversation regarding RPPs, adding to the common language for a tricky problem.

Appendix: The Framework Tool

Guiding Questions for Organizing Research-Practice Partnerships

This framework is intended for RPP teams, funders, brokers, practitioners, researchers, and evaluators. It can be used during all phases of an RPP for project planning, continuous improvement, and post-project reflection or evaluation.

Below are guiding questions to consider when using the framework.

Commitments

- What are your RPP's goals?
- What is your RPP's shared purpose?
- To what extent do you all agree to and hold each other accountable to these goals and purpose?
- What are the shared commitments of your RPP? Why have the RPP members chosen to work together? What does the RPP do to build trust?
- How does the RPP define its values? Does the RPP have explicit norms stated?
- How does the group hold itself accountable? How is equity ensured?
- How does each partner integrate the RPP purpose with their own institutional, organizational, or individual purpose?

Structures

- How does your RPP work together? What systems are used to coordinate and monitor the work?
- What structures make your RPP work effectively?
- Are there routines in place to deal with conflicts, identify priorities, and address challenges?
- How does the RPP ensure that all of its members gain benefit?
- What communication routines and systems exist within the RPP?

Expertise

- What types of expertise is needed for your RPP to be successful? How do you know you have the expertise you need?
- How are different voices and perspectives brought into the work?
- How do roles and responsibilities get agreed upon? How are they maintained or altered over time?
- Who has decision-making authority and for what parts of the work?

Social Learning

- How does your team learn about each other? How do people know they belong in the partnership?
- How often does your team engage with research and evidence together?
- What tools/artifacts/materials/resources/protocols do you use to promote learning and using research and evidence across your team?

What do you create together?

- What makes it easy to solve problems together? What are the challenges to solving problems within the partnership?
- What happens when there are failures? How well does the team learn from failures?

Reflection

- How do commitments, structures, expertise, and social learning contribute to your RPP's success in equitably scaling deeper learning?

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