NNERPP | EXTRA

Delivering fresh ideas from the intersection of ed research, policy & practice

Welcome to Our Fall Edition

By Paula Arce-Trigatti | NNERPP

Welcome to a new edition of NNERPP Extra! We hope this finds you as well as can be, given the number of ongoing disruptions we are all experiencing. We are also thinking of all of our practice-side friends, and those with kids returning to school – we hope everyone is managing given the many challenges related to reopening.

Even amidst all of these challenges, we are encouraged by the important conversations and good work that continue to take place, not least in the RPP and NNERPP community. Top of mind for us is the NNERPP Annual Forum – our yearly conference – that we hosted at the end of July. It was truly amazing to have had the opportunity to connect with so many from our network, and to hear our attendees surface important questions and crucial challenges around the role of RPPs in this time of disruption. Given their enduring importance, you'll see that we take up and continue some of these conversations in this issue of NNERPP Extra.

In this edition, you'll find:

- **Research Insights**: We learn about a proposed innovation to setting research agendas – one that is practice-driven and equity-centered.

- **RPP Deep Dive**: We consider how to implement principles of communication science in an RPP setting to help improve the use of research evidence.

- **Extra Credit**: We introduce a new framework meant to support RPPs in structuring conversations on equity throughout all phases of their work.

- **Research Headlines**: We share a roundup listing all of our members' research from the past quarter, including research and resources around COVID-19.

We hope you stay healthy and safe. Onwards!

NNERPP | Extra Online
Be sure to check out the NNERPP | Extra website if you'd like to explore this issue's articles (and more!) online.

About NNERPP
NNERPP aims to develop, support, and connect research-practice partnerships in education to improve their productivity. Please visit our website at nnerpp.rice.edu and follow us on Twitter: @RPP_Network.

IN THIS ISSUE

Where is Equity? Reflecting on a New Approach for Setting Equity-Centered R&D Agendas

By Babe Liberman & Viki Young | Digital Promise

Editor's Note: Although we typically include an examination and synthesis of related NNERPP-member produced research in the "Research Insights" series of NNERPP Extra, we invite you to join us as we take a brief detour from our regularly scheduled programming this round to learn about a proposed innovation to an early step in the research process (i.e., co-defining a research agenda that is practice-driven and equity-centered) from our colleagues at Digital Promise. They first share their approach to developing a protocol that supports the creation of practice-driven, equity-centered R&D agendas, then offer reflections from this process, and finally, share back discussion points that took place during their recent presentation of this protocol at the 2020 NNERPP Annual Forum.

One of the promises of research-practice partnerships (RPPs) is to produce research that is more relevant to practice or policy. This purpose is critical because, historically, education research has too often been based on gaps in published research or the niche interests of researchers, rather than the priority challenges faced by schools, districts, and states. As a result, the education studies coming out of traditional research designs are often not applicable to local education agencies' most pressing needs. And while we know that students at the margins–including Black and Latinx students, students experiencing poverty or trauma, students with learning differences, and English learners–often have very different experiences in schools than their white, middle class, and native English-speaking peers, the needs of students who could benefit most from new innovations have too rarely driven education research and development (R&D).

To spur future education research that addresses the specific equity goals of schools and districts, Digital Promise set out to define and test Equity in the Driver's Seat, a collaborative process that engages a variety of education leaders in developing **practice-driven, equity-centered R&D agendas**. To create such a process, we convened a range of education stakeholders to listen to and prioritize the equity-related challenges that on-the-ground staff face, while considering prominent gaps in existing research and solutions.

Testing Out the Process

For this testing phase of "Equity in the Driver's Seat," we selected two "challenge" topics around which to pilot this approach (adolescent literacy and computational thinking); we then identified teams from four League of Innovative Schools districts (Fox Chapel Area School District, Indian Prairie School District, Iowa City Community School District, and Talladega County Schools) to partner with us and provide the critical voice of real-time practice.

By inviting teachers to participate at the convening alongside researchers, funders, district administrators and other formal leaders with decision making authority, we strove to break down assumptions about what kinds of expertise count and to elevate the perspectives of individuals who work closely with students. We started the day by building trust and openness; participants each shared their commitment to equity. Next, we broke into strands by topic, with each group encompassing a diverse mix of

Where is Equity? Reflecting on a New Approach for Setting Equity-Centered R&D Agendas, continued

participants who began their discussions by digging into district teams' specific equity challenges. Only after dissecting the challenges did we invite teams to consider how knowledge from the research literature could help answer the district teams' context-based questions. Participants in each strand worked to coalesce their understanding about gaps in knowledge, and began collaboratively defining an agenda for future research questions and development priorities. The closing session provided an opportunity for participants to come back together to reflect on their experience.

After the convening we synthesized session and reflection notes into draft agendas, integrating a range of ideas to highlight the nuance and diverse perspectives that characterized the discussions. We iterated on these drafts based on input from district teams and other convening attendees, which resulted in sample R&D agendas for each challenge topic, as well as learnings about what sets this process apart from a traditional research agenda approach. Below we highlight some learnings about centering equity in R&D (read the full report to explore the practice-driven R&D learnings).

Indicators for Equity-Centered R&D Agendas

Based on reflections from participants, facilitators, and our own analysis of discussion notes from throughout the day, we identified preliminary indicators of R&D agendas that center equity. These include:

- Evidence that marginalized groups' voices and participation are there from the start, based on the process for setting the agenda
- The specific challenges included in the agenda are those faced by marginalized populations and are identified by members of the community themselves, again based on the agenda-setting process
- Equity is not a separate consideration but integral to the problems addressed in the agenda based on how questions are framed
- The agenda uses equity-informed language – for example, leading with persons and potential rather than descriptors with negative attributions (e.g., students experiencing poverty rather than poor students)

These indicators reflect the goals we set out for the project and to some extent, are aspirational because, in reflecting on our 1-day convening, we realized how difficult it was to keep equity central to the conversation. In analyzing the discussions–in terms of content and flow–we observed that it was easier to focus on practice without consistently situating equity considerations within the practice focus.

Facilitator Reflections

We – participants in the Equity in the Driver's Seat convening – found it challenging to keep equity at the center of discussion for several reasons. Below we offer some reflections for why this might have been the case, as well as some suggestions for how we could have improved this process.

- Participants approached the agenda-setting discussions with different frames for equity; including an orientation about meeting individual differences and needs in the classroom and system-level examination of differences between groups of students, as well as more upfront work to build a common definition of equity, would have been helpful
- Most participants and facilitators brought **content expertise** in adolescent literacy or computational thinking; more folks with expertise in equity work would have enriched the discussion
- As facilitators, we focused on session logistics and making sure a range of voices were heard; however, more explicit facilitation prompts, in-the-moment scaffolding, and pushing on equity would keep the discussion focused on equity rather than moving back to "equality," especially in light of local political contexts that emphasize "all students"

Where is Equity? Reflecting on a New Approach for Setting Equity-Centered R&D Agendas, continued

These reflections lead us to problematize this idea of an <u>equity-centered</u> R&D agenda. How does being equity-centered change the questions included in an R&D agenda, if at all, and how might corresponding research and development practices need to change? This question resonated with participants in our 2020 NNERPP Annual Forum session, "Where is Equity?: Setting Practitioner-Driven, Equity-Centered R&D Agendas."

Strategies and Reflections from the Field

In the session, participating RPP representatives shared several strategies that their partnerships use to keep equity at the center of their work. Multiple partnerships stressed the importance of **common equity language**; members from both the research and practice sides described working to be transparent about potential biases, to avoid making harmful assumptions based on these biases. One participant described **being alert for buzzwords or phrases** (like "all students") that signal when partnership discussion is veering off from equity; this team points out and scrutinizes these slips to get back on track. Another participant shared a simple, actionable tip: explicitly include equity discussions in RPP meeting agendas. The strategy of **adding equity as a recurring agenda item** resonated with others whose RPPs strive to focus their work on ensuring students and educators can get what they need.

While joint development of research questions with practitioners is a familiar RPP strategy, **collaborative <u>interpretation</u> of data** is another equity-oriented approach that some partnerships are beginning to integrate into their processes. They recognize that the lived experience of practitioners and community members can deeply inform how data is interpreted. For example, one partnership is working to bring in Native American community members into their research conversations; they are considering ways to provide support on reading data, which is new for some community members. Others are working on the accessible presentation of data, using dashboards with data disaggregated by student sub-groups, and scaffolding discussions with equity rubrics.

We additionally invited participants to share ideas about tools and resources that would be useful to their efforts in centering equity during the research agenda setting process. Their ideas included:

- Accessible equity framing and definitions
- Tools for collaborative interpretation of data
- Training on culturally-appropriate research methods

And finally, we ended the session with some lingering questions that participants were interested in pondering further:

- How can partnerships support districts to engage with troubling equity-related research findings?
- Beyond diversity, equity, and inclusion, how can partnerships center anti-racism in their work?
- What definitions of "data" and "evidence" are RPPs using? Who decides what "counts"?

Where is Equity? Reflecting on a New Approach for Setting Equity-Centered R&D Agendas, continued

Next Steps

The "Equity in the Driver's Seat" convening yielded useful protocols for centering practice in generating R&D questions and underscored the effort and intentionality required to maintain a focus on equity throughout the conversation. Through ongoing work, including Inclusive Innovation projects, we will continue to learn about how to spotlight equity in identifying research questions, creating development criteria, defining outcomes that matter to historically marginalized communities, and understanding implementation factors that shape inclusion.

We hope to keep learning about equity-centered research partnerships with and from the NNERPP community. Please be in touch with us (babe@digitalpromise.org and vyoung@digitalpromise.org) to share questions or ideas, or if you'd like to collaborate on related work.

● *Babe Liberman is the Project Director of Research Communications and Viki Young is Senior Research Director at Digital Promise.*

Improving the Use of Research Evidence through Communication Science Principles: Insights from RPP Communication Leaders

With Megan Dillingham, Chelsea Farley, Lila Goldstein, Jessica Holter, and Sara Slaughter

Communication science offers an audience-centered approach to engaging education policymakers and practitioners with research evidence that can inform their decisions. In our previous issue's "Deep Dive" article, Itzhak Yanovitzky, Professor of Communication at Rutgers University and expert in the areas of behavior change communication, public policymaking, translational research, and program evaluation, and Cindy Blitz, Research Professor at the Rutgers University Graduate School of Education and facilitator of translating scientific knowledge into educational practice in K–12 education, shared four key principles of audience engagement from this communication science perspective.

Here, we continue the conversation from a different perspective, oriented to practical application: In this second and final part of our two-part series examining how principles of communication science can help improve the use of research evidence, we are joined by five communication leaders working in research-practice partnerships (RPPs) to consider how to implement the principles shared by Itzhak and Cindy in an RPP setting.

Before we dive in, meet the communication leads who generously shared their insights and experiences with us for the purpose of this article: Joining us for the conversation are Megan Dillingham, Communications & Development Manager at the Houston Education Research Consortium; Chelsea Farley, Communications Director at the Research Alliance for NYC Schools; Lila Goldstein, Research Data Analyst Lead at the Northwestern Evanston Education Research Alliance; Jessica Holter, Research Manager at the Tennessee Education Research Alliance; and Sara Slaughter, Associate Director of Communications and Operations at ERA-New Orleans. As you might have noticed as you read through this mini-introduction, "communications" is not necessarily the main or only aspect of Megan, Chelsea, Lila, Jessica, and Sara's roles. Second, they represent a diverse range of RPPs, in terms of location, size, and age. And as a last note, they have been leading their partnerships' communications efforts for anywhere from a few months to several years. This all makes for different experiences, as you'll find out in the following paragraphs! These same aspects will likely also shape how and to what extent you might be able to implement communication science principles in your own partnership.

For each of the four principles introduced by Itzhak and Cindy in Part 1 of this series, we asked our five communications leads to address a number of questions about what it looks like (or could look like) to implement the principles "on the ground." Below, we summarize what they shared with us.

PRINCIPLE #1: THINK "USE," NOT "EVIDENCE"

>> In short: It is better and more informative to map out users' evidence use **routines** rather than promote an artificial "use" versus "non-use" dichotomization of evidence.

Improving the Use of Research Evidence through Communication Science Principles: Insights from RPP Communication Leaders, continued

1. How should we measure "success" in terms of RPP artifacts getting "used," especially given Itzhak and Cindy's recommendation to report various levels of engagement from "little to no engagement" to higher levels that might include "frequent, deliberate, systematic, and critical"?

All five of our communications leads have either started to think about or are actively pursuing methods of measuring engagement that go beyond tracking the number of downloads of research briefs or the number of retweets on Twitter posts about the research. Chelsea points out that tracking the "demand" for evidence among key audiences or audiences' "responses" to the RPP's work can be measures of engagement. For example, audiences reaching out with comments or follow-up questions about research publications or even proposing new, related lines of research are clear indications of active engagement with the evidence. Chelsea says that her RPP pays attention to invitations by stakeholders in the community or in educational organizations to either present research or even just contribute thoughts and lend a listening ear as indications of engagement (and Lila plans to do the same). Jessica adds that "the frequency and depth of the conversations" RPPs are having with their partners are valuable indications of the level of engagement with the research.

Megan and Sara emphasize the importance that engagement with the broader community holds for their respective RPPs, and both HERC and ERA-New Orleans have recently intensified their efforts to build closer relationships with community representatives. For example, Sara's RPP in New Orleans has expanded its advisory board to include community members. Additionally, Megan also describes Houston's recent efforts and successes in engaging more closely with policymakers, including meeting with Texas House and Senate decision makers to discuss the RPP's recent findings on the trajectory from high school and postsecondary education to the workplace. These efforts suggest that one way for RPPs to increase engagement is to actually broaden engagement by connecting and building relationships with more audiences. Chelsea points out that the importance of relationships in and for RPPs is well-established in publications from the field and that "stakeholders are more likely to engage with evidence when they know and trust the people producing it." Sara observes that this also speaks to Itzhak and Cindy's next point (see paragraph below) about what counts as use – the more the RPP connects with community stakeholders, the more insight it gains about how research findings can and cannot be useful to them.

2. How should we decide what counts as "use," given the different goals, needs, capabilities, and circumstances of our users? (i.e., how do we carefully account for more than just the R-side's perspective of what "use" looks like?)

Our communications leads agree there are various ways to think about this and RPPs must not necessarily limit their goals for or definitions of "use" to just one of these ways. At the same time, the specific purpose or mission of an RPP can give some direction around which "kinds" of uses to prioritize. For example, Jessica's RPP in Tennessee is built around the concrete mission of helping policymakers at the Tennessee Department of Education make decisions about policy change or implementation at the state level and in districts when the research is relevant. Her RPP, then, cares about whether their research is being considered in this way or is at least helpful for policymakers in thinking about issues based on the data. Chelsea's definition of use is a bit more loose: "I see any kind of engagement with research evidence as a positive." Acknowledging that "often, there is substantial room for interpretation about what a particular research finding might suggest for policy or practice," Chelsea suggests that even agreeing on a set of "facts" coming out of a research study can be a good foundation for evidence use in the longer term: Even if stakeholders disagree

Improving the Use of Research Evidence through Communication Science Principles: Insights from RPP Communication Leaders, continued

about their implications, an agreed-upon set of facts can accomplish important goals, including narrowing the set of options under consideration and pointing to new questions that additional research can answer, providing clearer guidance for policy and practice decisions. Lila adds that getting people to "think about issues in a more nuanced way" based on research already counts as valuable "use" of research in her book.

3. How should we think about the artifacts produced by the RPP in relation to the various other forms of evidence our p-side partners might use in weighing a decision? What does "success" look like there?

As Jessica puts it: "As long as it is clear that our primary stakeholders are regularly engaging with our research and considering the research findings as part of the larger policy puzzle, that's a win for us.." Lila elaborates on the same thought, saying that different pieces of evidence should not be seen as being used in competition with one another, but in contrast, can also complement each other, given the limits of different research studies, forms of evidence, and areas of expertise. Additionally, Jessica points to variables outside of their control (such as the current pandemic) that might impact whether p-side partners consider certain research findings. Even then, information provided by RPP research might be picked up again "down the line when a policy window opens again."

4. Finally, how should we "map out" users' evidence use routines, as suggested by Itzhak and Cindy?

In their answers to this question, all communications leads point to the need to talk directly with audiences and ask them about this in some shape or form; Chelsea, Jessica, and Sara point to concrete examples of efforts their RPPs have undertaken to this effect. Sara describes how a conversation with a college counselor led her to find out about the counselor's school doing an orientation session for new teachers that involved a gallery walk of key figures from ERA-New Orleans' research studies posted around the room to orient teachers new to town around the context of Hurricane Katrina and the New Orleans school reforms. If not for that deliberate conversation, her RPP would never have known that their research was being used in this way – and there was a need for perhaps additional, more targeted artifacts that could orient those new to the city around the specific local context. Jessica describes how TERA has worked with a communications firm to conduct interviews with key partners specifically for the purpose of learning more about where the RPP added value and where there were gaps, and Chelsea similarly describes the Research Alliance's launch of a stakeholder survey to assess people's perceptions of the work and the partnership's role in New York City. She reflects on how this survey might also be helpful in gathering more specific information about people's evidence use routines.

PRINCIPLE #2: IDENTIFY THE RIGHT PROBLEM

>> In short: Use of research evidence is enabled by the combination of users' capacity, motivation, and opportunities to use research evidence. This capacity-motivation-opportunity framework is an effective tool for diagnosing the real problem you need to address in your interventions to improve use of research evidence in policy and practice.

1. From your perspective, which of the three conditions for use identified by Itzhak and Cindy (i.e., capacity, motivation, opportunity) are the greatest challenge for RPPs / your RPP?

Speaking from their experiences at their own RPPs, both Chelsea and Sara name motivation to seek out and use research evidence as their biggest challenge. This is true in particular once you go beyond those practitioners and

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policymakers directly involved in the development of research projects (who by nature of their direct work with the research project do have the motivation to consider its findings), Sara points out. Chelsea adds that motivation is also the condition for use that seems hardest to change or influence for RPPs, especially in a highly politicized climate, in which ideology rather than evidence often seems to have the greatest influence on people's thinking and actions. In contrast, opportunity is the condition that an RPP can probably influence the most, for example by making the research easily digestible and readily available in ways that consider the audience's preferences and needs. However, Lila points to factors that complicate a partnership's ability to influence or control users' opportunity to engage with research, such as shifting policy windows and the associated decreased opportunity (such as time) practitioners and policymakers might have to consult now less-relevant research.

2. Any ideas or strategies for how to address this?

RPPs might be able to address some of the previously named challenges around the conditions for using research. For example, RPPs can ensure that evidence is part of the public conversation about important education policy issues to increase awareness of key findings and communities', practitioners', and policymakers' motivation to act on that information, says Chelsea. An example of how this can be effective, she says, is journalist Emily Hanford's writing about the "science of reading" in 2018 and 2019 (see for example here and here), which though not new appealed to key audiences – and this interest and attention in turn created "awareness and pressure to act on evidence that had existed for some time."

PRINCIPLE #3: KNOW YOUR AUDIENCE

>> In short: Place the target audience and their perspectives (including their capacity, motivation, and barriers and facilitators to using research evidence) at the center of your communication strategy through an audience analysis to effectively promote a specific behavior or practice.

1. Generally speaking, does your RPP conduct any type of audience analysis (i.e., try to understand your different users' needs, goals, interests, predispositions, and experiences) with respect to the development of RPP products?

Our communications leads agree that the very nature of RPP work prioritizes and facilitates an understanding of audiences' needs, goals, and interests, at least when it comes to primary target audiences. Since partnership work by definition addresses actual problems practice-side partners are experiencing and is developed in partnership between researchers and the p-side, ongoing collaboration and communication about the usefulness of the research and the needs of p-side partners is already built into the research process from the very inception of the research questions. Chelsea and Jessica also name other intentional processes and strategies their respective partnerships have developed to capture key stakeholders' perspectives: A Steering Committee (at the Research Alliance for NYC Schools) and an

Improving the Use of Research Evidence through Communication Science Principles: Insights from RPP Communication Leaders, continued

Advisory Council (at TERA) that frequently provide feedback and input on the direction of the work, both representing a range of key stakeholders beyond groups that might be directly involved in a given research project. As Jessica puts it, "our research very much happens within cycles of conversation and feedback with our key audiences." Chelsea additionally points to the previously referenced stakeholder survey her partnership recently conducted, which offered valuable insights about and from core audiences. Finally, relatively simple measures such as website and social media traffic and analytics give additional insight about the audiences that are engaging with partnership work in these ways.

2. More specifically, does your RPP engage in audience segmentation? If so, what are the dimensions of your audience that you have found useful to segment on? Or, does your RPP try to tailor products for different audience segments? How so?

For the most part, our communications leads acknowledge that their partnerships don't do as much intentional audience segmentation "as we probably should" – mostly due to time and capacity constraints. That is not to say that messages and artifacts are not tailored to specific audiences and communication/engagement platforms to a certain extent, often in terms of length, level of detail, and general language. But more detailed audience segmentation is a complicated endeavor. Perhaps most strategically, Sara shares her partnership's three key groups of audiences:

1) Policymakers, practitioners, and people who can use the partnership's research to directly affect change
2) Academics, media, and influential voices who can use the partnership's findings to inform their own work, shape discussions, and share the work with others
3) General public, including families, students, and community members who are most directly affected by the issues the partnership studies

Chelsea adds that her partnership often segments audiences by professional role and position in the education ecosystem, such as teacher, superintendent, researcher, advocate, nonprofit or community-based organization staff, and so on. Lila thinks about her partnership's audiences "in terms of what they care about and what kinds of decisions they need to make," which will differ across research studies. Jessica points out that different types of products may speak to different types of people, so a broad array of products/platforms, such as briefs, podcasts, newsletters, and social media, is likely to reach more and diverse audiences, even if audience segmentation is not happening more intentionally. For certain studies, it can also be much more clear than for others who the intended audience is, in which case tweets and newsletter language can be crafted in accordance with that audience's interests. Interestingly, Lila observes that early-stage partnerships with less well defined artifacts or products might in fact engage in audience segmentation more, saying "we are all audience segmentation all the time!" as a way to determine how research findings will be shared given a lack of pre-defined templates or communication plans.

PRINCIPLE #4: MATCH COMMUNICATION STRATEGY TO BOTH THE PROBLEM AND THE AUDIENCE

>> In short: Once you have determined the problem (capacity, motivation, or opportunity) and know your audience well, your actual communication comes into play. Here, the audience engagement continuum ranges from simple exposure to actual engagement - building your audience's interest, motivation, perhaps even enthusiasm to use research evidence. The best engagement strategy by far is to partner with your target audience on the design of communication.

Improving the Use of Research Evidence through Communication Science Principles: Insights from RPP Communication Leaders, continued

1. Do you have any suggestions for how to move away from an "exposure" strategy to support research use, where one simply "exposes" your intended audience to the RPP's message / findings / content, towards an "engagement" strategy, where the RPP actively builds your audience's interest, motivation, and enthusiasm to engage with the RPP's artifacts?

> In Chelsea's words: "The more engagement we have from the beginning of a project, the more effective we are at communicating the results and why they matter." To her, the best way to promote and sustain evidence use is through a combination of taking insights from the policy and practice world (through ongoing collaborative work) and then also communicating about the work to the broader public (for example, through a relationship with a great reporter). Similarly, Jessica shares how her partnership sees an effective policy brief as the "end product of all the engagement we've had throughout the research process."

2. Do you partner with your intended audience / users on the design of the communication? If yes, how so?

> Jessica takes us directly to this final question by outlining how in her partnership, a research brief is in fact developed through continued dialogue with the practice partners whose problems are addressed in the research (in fact, you can read more about it in this piece she wrote for an earlier issue of NNERPP Extra!). Megan adds that school district partners, often the main intended audience for her partnership's research, can also provide valuable feedback for developing artifact templates, sharing how one-on-one meetings with such a district partner helped her design and format more effective one-page research overviews. Both Megan and Chelsea also describe partnership processes whereby drafts of reports, briefs, and presentations are frequently shared with and reviewed by practice-side partners and Steering Committee members ahead of publication to make them stronger.
>
> An even deeper partnership as envisioned in this communication science principle, where a research product or tool is truly co-designed by researchers and intended users, could definitely be a goal for the future, Chelsea adds. Additionally, "hearing people wrestle with findings from different vantage points," perhaps through convenings with researchers, policymakers, and practitioners about evidence, might also be informative for creating better communication.

As our conversation with the five communication leads demonstrates, the principles of communication science are quite relevant for RPPs' efforts in getting their evidence used. In many ways, RPPs are uniquely designed to support the implementation of these principles, given the inherently close partnership that takes place with many of the end users of the research. In other respects, it can be quite challenging to put the principles into practice – not least because of time and capacity issues, which suggests a need to directly fund partnerships' communication and engagement efforts. These challenges will likely be greater still for smaller partnerships without dedicated communications leads. Nevertheless, our intention with the conversation shared here is to further our knowledge bases around supporting use of research evidence, and in particular, provide further guidance to all for how to apply the theoretical underpinnings from communication science to RPP practice.

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Dimensions of Equity in RPPs - A Framework to Guide Partnership Discussions

By Stacey Sexton (SageFox Consulting Group), Jean Ryoo (Center X - Computer Science Equity Project, University of California, Los Angeles), Lisa Garbrecht (STEM Evaluation Services, The University of Texas at Austin), and Renee Fall (National Center for Computer Science Education, College of St. Scholastica)

INTRODUCTION

Research-practice partnerships (RPPs) have been growing in number across the nation as various fields–from medicine to education–realize their potential to address persistent gaps between research, practice, and policy. More specifically, RPPs are meant to better align research questions, methods, and intervention designs with the persistent problems that practitioners identify in their work, supporting the discovery of new knowledge that is more relevant to practitioners' needs and interests. At the same time, RPPs can help ensure the implementation of evidence-based practices as educational projects become better informed by such relevant research. This is because RPPs bring together researchers and practitioners to jointly negotiate research questions, data collection, analysis, and findings dissemination through long-term, mutually beneficial collaborations (Coburn, Penuel, & Geil, 2013; Tseng, 2012).

RPPs are also at the forefront of current Computer Science for All (CSforAll) efforts seeking to broaden participation in computing for the many young women, low-income communities of color, rural communities, English Learners, and students with disabilities who have been denied equal access to quality education experiences in the field (see, for example, Margolis et al., 2008/2017). Funders such as the National Science Foundation have been encouraging projects that leverage RPPs to develop a stronger knowledge base as well as to implement projects with broader positive impacts regarding students' learning experiences in computing (see for example NSF 17-525, 18-537). To support shared learning across these projects, CSforALL and SageFox Consulting Group have partnered as RPPforCS to facilitate convenings and community-building among all RPPs funded through the NSF program (Sexton, Zarch, & DeLyser, 2020). The mission of RPPforCS is two-fold: (i) to organize the community of funded projects to maximize cross-project learning and knowledge sharing; and (ii) to conduct research with this community to understand how RPPs develop and change over time in the context of growing a new discipline within K-12 education. As of May 2020, RPPforCS has hosted 25 webinars, 2.5 in person gatherings, and have produced several Theme Studies and Research Practice Briefs with the goal of promoting cross-project learning and collaboration.

At one such convening that took place before the 2020 Research on Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT) Conference, workshops were held to address various issues of interest to CSforAll RPPs. One workshop–entitled "Problems of Practice: Keeping the Focus on Equity in your RPP" led by Florence Sullivan, Jean Ryoo, Jill Denner, and Sneha Veeragoudar–was organized to support RPPs in learning from one another through identifying and discussing multi-level problems of practice concerning equity in RPPs. Over the course of the first hour, the assembled group worked to converge on a deeper understanding of the equity challenges faced by RPPs in order to shape a broader discussion encompassing the complexity of equity work from a number of perspectives. In the second hour, the discussion moved toward the articulation of strategies to continually center equity in RPP projects through a visualization activity.

Dimensions of Equity in RPPs - A Framework to Guide Partnership Discussions, continued

Within the context of the workshop, this meant either, 1) ensuring that projects/interventions consider issues of equity while resulting in equitable outcomes for students and educators, or 2) considering how to maintain respectful relationships within RPPs that equally honor the work and roles of both practitioners and researchers. Workshop attendees formed groups to create visualizations as tools to further their discussions.

In one such small group, four researchers (the co-authors of this piece) came together to reflect on ways to keep equity at the center of measurement and research / evaluation efforts within an RPP. The authors used the visualization activity to develop a framework that RPP teams can use to structure conversations around equity within their work. This framework includes questions that can support RPP discussions in every phase of a collaboration, from the early design process to the dissemination of findings. The co-authors are involved in RPPs focused on broadening participation in computing specifically, and that is reflected in our language throughout this piece. We believe this framework applies to any RPP examining issues of equity, however, and is not limited to those focusing exclusively on CS education. In what follows, we share details regarding the framework, literature informing this tool, and its potential applications in RPPs.

A FRAMEWORK FOR FACILITATING RPP EQUITY CONVERSATIONS

When designing this framework, we began our work with a focus on how to measure equity in educational outcomes. We quickly realized, however, that a more holistic approach was needed to understand equity that moves beyond a focus on outcomes data while accounting for systems and structures of an RPP and within education. We reflected on the challenges of discussing issues of equity within various aspects of RPPs and how difficult it can be to find a starting place for open conversations across partners. As such, we decided that a useful tool would be a framework that outlines discussion questions to surface equity concerns within three domains: Equity in the Partnership, Equity in the Research, and Equity in the Practice/Implementation. Equity in the Partnership refers to equity within the actual RPP itself in regards to relationships and interactions across practitioners and researchers; Equity in the Research refers to all matters related to formation of research questions, data collection, data analysis, and engagement of the public with findings; Equity in the Implementation refers to all teaching/learning practices associated with the program or intervention under study. These three domains intersect to form what is the center circle in our diagram (see Figure 1 below). This overlap of the three domains at the center represents the ultimate aim of recognizing the utility of an RPP in deepening the understanding of equity in a context and developing a more relevant strategy for achieving equitable outcomes.

We recognize that even engaging with this framework requires a willingness from both researchers and practitioners to ask tough questions, expose uncomfortable truths about existing structures, practices, and policies, and to (potentially) commit to addressing these. This framework does not address tensions that may arise as the partnership navigates questions such as, Whose job is it to identify structures/systems/policies that are counter-productive, or may have unintended consequences? Whose job is it to change them? What happens if the practice side partners refuse or simply can't, given the highly political nature of these decisions? What role is the RPP expected to play then? As these questions emerge in the context of these discussions, we encourage teams to work through them as they are able. More generally, we hope that this framework can provide a structure for partnerships looking to delve deeply into equity work, and we presume that partnerships may discover boundaries (actions or ideas that are off-limits), barriers, and opportunities for advancing equity as a result of engaging with the framework.

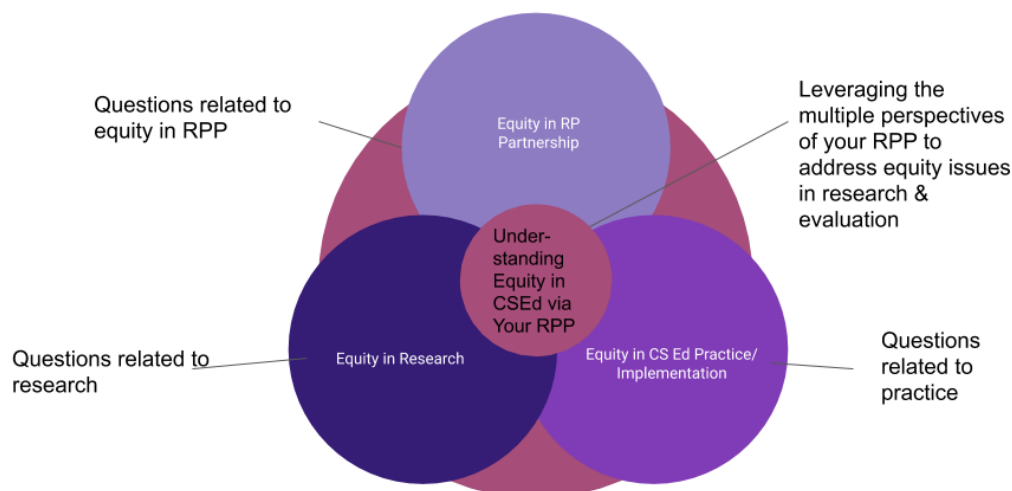# Dimensions of Equity in RPPs - A Framework to Guide Partnership Discussions, continued

Figure 1: Framework for Facilitating RPP Equity Conversations

FRAMEWORK SECTIONS: EQUITY IN PARTNERSHIP, RESEARCH, PRACTICE, and AT THE NEXUS

>> Equity in the Research Practice PARTNERSHIP

Whether in the early stages of relationship-building or later phases of disseminating collaborative lessons learned, it is valuable to regularly reflect on the health of an RPP and the nature of power dynamics across partners. It is challenging for RPPs to enact equitable education interventions and research if relationships and interactions within the partnership itself are inequitable. Furthermore, embracing the reality that humans are imperfect beings and that we all have room to grow and be better at challenging oppressive thoughts, actions, and institutional structures, continuous reflection and dialogue within RPPs about whether or not the collaboration is equitably engaging and respecting all partners is important.

In this reflection on centering equity in conversations about RPP relationships and work, we leaned on the questions and ideas raised by Henrick, McGee, and Penuel (2019) as well as Ryoo, Choi, and McLeod (2015). We developed a list of guiding questions for consideration within RPPs themselves as they engage with the implementation of educational interventions as well as collecting/analyzing data. More specifically, the following questions can support conversations about whether or not RPP interactions and efforts are effectively guided by a shared equity lens or not:

- How has the RPP defined "equity" in regards to the shared work, mission/vision of the RPP, and partner relationships?
- Has the RPP undergone a process to really understand their communities, unique sociocultural and historical contexts, and local needs?
- Has equity and representation (roles, skill, identity, etc.) been considered in the design of the RPP membership?
- Has the RPP built trust and cultivated healthy relationships among its members?
- Has the RPP gained a shared understanding and appreciation of the diversity of skills and knowledge across the partnership that can inform the shared work?
- How is the RPP attending to both rigorous research goals and practice partner organization goals?
- Has the RPP developed a shared vocabulary and understanding of the topic of inquiry?
- How are differential workloads, responsibilities, and roles being considered across the partnership?
- Are practitioners represented in the RPP and given adequate space to share their perspectives?

Dimensions of Equity in RPPs - A Framework to Guide Partnership Discussions, continued

These questions serve as a starting point for considerations of equity within the RPP regarding relations, expectation, effort, and representation across practice and research.

>> Equity in the RESEARCH

A key activity for many RPPs is conducting and using rigorous research to inform action (Henrick et al, 2017). Tseng, Fleischman and Quintero (2018) additionally speak to the pitfalls associated with traditional education research practices and propose RPPs as a potential model for democratizing evidence in education.

While Tseng, Fleischman, and Quintero (2018) were speaking specifically about bringing researchers and practitioners together to define research agendas and make meaning of evidence produced through research, we believe this charge can be expanded to include democratized access to the entirety of the research process itself. Leaning on this concept of democratization, we drafted several guiding questions for partnerships to consider as they engage in the various stages of their research work.

Research Design

- Are research and evaluation measures in line with the equity-related practice and implementation goals set by the project?
- Have you considered how data categories have been constructed, and in what ways such categorical construction may mislabel, dehumanize, or misguide our understandings of minoritized populations?
- How are research methods attending to the diverse understandings of culture and knowledge in learning spaces and/or partnerships?
- How are research methods attending to the power hierarchies of partnerships and educational contexts?

Data Collection/Analysis

- How are data collection processes attending to participants'/partners' needs, interests, and comfort levels?
- How are data collection processes moving beyond just preventing harm to actually benefiting those involved?
- Are teachers, school, and/or district personnel involved in analyzing and sense-making of the data collected?

Implementation

- Were practitioners who wished it provided opportunities to understand the research processes such that they could meaningfully contribute to research-related activities of the RPP?
- Have students been given the opportunity to understand the research being done, their role, and be involved as more than a research subject?

Public Engagement

- Has attention been given to how the broader community is engaging with results of the RPP specifically to impact practitioners' work (i.e., more than a peer-reviewed article, or report to school/district leaders)?

These guiding questions build off of the reflective work of considering equity as presented in the previous section and also inform considerations of equity as they are built into the practice and implementation efforts of a partnership.

Dimensions of Equity in RPPs - A Framework to Guide Partnership Discussions, continued

>> Equity in CS Education PRACTICE/IMPLEMENTATION

To achieve the ultimate goal of inclusive CS education for <u>all</u> students, RPPs must take into account the complexity of equity in the educational systems in which they are situated. Understanding and measuring equity in an RPP's implementation goes beyond the diversity of students participating in CS education, as a demographic indicator alone may not reveal intersectional disparities and/or the systemic structures that contribute to pervasive inequities. Fletcher and Warner (2020) provide a framework to assess equity at four levels of the education system which are progressive and build upon each other, including <u>Capacity for, Access to, Participation in, and Experience of</u> CS education (CAPE). Looking at equity within these four levels can provide a more holistic understanding of disparities in computing education (Warner, Fletcher, & Garbrecht, 2019) and can help identify systems, policies, and/or practices that RPPs can address to achieve equitable student outcomes.

Along with utilizing the CAPE Framework discussed above, we leaned on Santo et al.'s (2019) research on school districts' conceptualization of equity in RPP implementation and Goode's (2019) presentation of Microsoft's Guide to Inclusive Computer Science Education to develop the following questions that can guide RPPs in their assessment of issues of equity and in their RPP's design and practice at multiple levels of CS education.

Capacity

- How are the RPP's strategies and implementation informed by and responsive to school and teacher capacity (e.g., resources, supports, skills) to support high quality, equitable CS education?
- What structures, systems and/or policies are in place that impact issues of equity in educational outcomes?
- What role does the RPP have in addressing capacity issues in the educational setting? Do different members have different roles?

Access

- Who has access to CS education in the schools? What CS pathways are available and for whom?
- How is the RPP addressing structural barriers and beliefs systems that may inhibit access? Are the changes being undertaken by the RPP having an impact on the structural barriers and beliefs systems that may inhibit access?

Participation

- Who is participating in CS? Does CS participation reflect school-level demographics?
- What processes and/or strategies is the RPP supporting to address gaps in student participation (e.g, teacher professional development, gatekeeper engagement, recruitment, policies)? Is there evidence that RPP-driven processes and strategies are having an impact on the gaps or barriers they were designed to address?

Experience

- Are the curriculum, pedagogy, and learning space culturally responsive? Does this impact learning?
- How is the RPP supporting teachers in providing culturally responsive lessons, practices, and experiences customized for their students and context?
- How are student engagement, agency, and identity supported and assessed?

Dimensions of Equity in RPPs - A Framework to Guide Partnership Discussions, continued

>> Equity at the NEXUS: Understanding Equity in CS Education via an RPP

Equity can be infused into each of the three dimensions of RPPs focused on broadening participation in computing education: the partnership, the research, and the practice or implementation of educational innovations or interventions. The framework thus provides questions to assist partners in deeper discussion of how equity is expressed in these three areas. At the intersection of these dimensions is the nexus of this work, which reflects the value of RPPs as a vehicle for understanding and achieving equity in CS educational contexts. Answers to questions such as these (below) following discussions of equity in each dimension may support RPPs in better understanding or defining equity goals and directions at any point in their work.

- How is "equity" defined in educational practice, enacted in your partnership's behavior, and studied through research in your RPP?
- What are the barriers to achieving your equity goals and from where do they arise (implementation, research, or partnership)?
- How can relationships, roles, and responsibilities across the partnership be leveraged to potentially address the barriers to equity that you have identified?
- How is your implementation of equity-focused practice informing research?
- How is research on equity informing practice?
- How is your partnership enhancing or inhibiting equity-focused practice?
- How is your partnership informing research?

CONCLUSION

This framework was designed as a resource to support RPPs in structuring conversations on equity throughout all phases of their work. The framework can be used in a retreat or workshop setting with RPP teams examining questions from each dimension to facilitate discussions on how they are conceptualizing, assessing, and addressing equity in their partnership, research, and practice. Questions in this framework can serve as a starting point, prompting RPPs to identify and discuss other questions that may be more relevant to equity in their RPP. Through these discussions, teams can gain a deeper understanding of equity in computer science education within the context of their RPPs, illuminate areas of success or concern, and identify ways to strengthen their strategies for achieving equitable outcomes. We encourage RPPs to try out this framework with their teams and to explore formats and identify questions that are most pertinent to their projects. We intend to build on this framework in an iterative process and welcome your questions, feedback, and suggestions about utilizing the framework to support equity in RPPs.

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Dimensions of Equity in RPPs - A Framework to Guide Partnership Discussions, continued

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Research Headlines From NNERPP Members: Last Quarter

ASSESSMENTS

HOUSTON EDUCATION RESEARCH CONSORTIUM

examines the comparability of various assessments of literacy achievement and growth

REL NORTHEAST & ISLANDS

examines the association between schoolwide instructional observation scores and student outcomes

COVID-19

DETROIT EDUCATION RESEARCH PARTNERSHIP

examines students' experiences with distance learning

EDUCATION POLICY INNOVATION COLLABORATIVE examines

-- Districts' COVID-19 responses in Michigan
-- Michigan school districts' reopening plans
-- Teachers' experiences during the transition to distance learning

REL MID-ATLANTIC

provides guidance for re-opening schools in Pennsylvania

UCHICAGO CONSORTIUM

examines learning loss during COVID-19

WISCONSIN EDUCATOR EFFECTIVENESS RESEARCH PARTNERSHIP

examines families' perceptions of remote learning

CURRICULUM

REL CENTRAL

examines Algebra I success

EARLY CHILDHOOD EDUCATION

BOSTON P-3 RESEARCH-PRACTICE PARTNERSHIP

examines links between families' at-home learning activities and students' skills during pre-k

EDUCATION RESEARCH ALLIANCE FOR NEW ORLEANS

examines access to Head Start through text messages

MADISON EDUCATION PARTNERSHIP

examines multilingual parents' perceptions about their children's 4k programs

EQUITY

DIGITAL PROMISE

introduces approach for setting equity-centered research agendas

HIGH SCHOOL

UCHICAGO CONSORTIUM

examines on-track indicators for high school sophomores

MULTILINGUAL LEARNERS

PARTNERSHIP FOR EARLY EDUCATION RESEARCH examines

-- The context around educational opportunities for multilingual learners
-- Effective instruction for multilingual learners
-- Resources for engaging families of multilingual learners in Connecticut

POST-SECONDARY

HOUSTON EDUCATION RESEARCH CONSORTIUM examines

-- College enrollment indicators
-- College success initiative
-- Houston and Texas labor markets
-- Optimal tuition subsidies
-- Role of FAFSA in summer melt
-- School-to-work linkages

RESEARCH ALLIANCE FOR NEW YORK CITY SCHOOLS

evaluates college readiness mentoring program

TENNESSEE EDUCATION RESEARCH ALLIANCE

examines early postsecondary opportunities

SCHOOL IMPROVEMENT

UCHICAGO CONSORTIUM

reexamines the 5Essentials survey

STEM

UCHICAGO CONSORTIUM examines

-- Building more equitable math environments
-- Trends in computer science education

STUDENTS

REL CENTRAL

examines how students use their flexible time

REL MID-ATLANTIC

develops approach for identifying at-risk students

TEACHERS & PRINCIPALS

EDUCATION RESEARCH ALLIANCE FOR NEW ORLEANS

examines teacher unions in charter schools

REL CENTRAL

examines mobility and attrition among school and district leaders

TENNESSEE EDUCATION RESEARCH ALLIANCE examines

-- Educator mentorship programs
--Teachers' professional learning opportunities

End Notes

NNERPP | Extra is a quarterly magazine produced by the National Network of Education Research-Practice Partnerships (NNERPP), a professional learning community for education research-practice partnerships (RPPs) housed at the Kinder Institute for Urban Research at Rice University. NNERPP's mission is to develop, support and connect RPPs in order to improve the relationships between research, policy, and practice.

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