



## Welcome to Round 2!

By Paula Arce-Trigatti | NNERPP



Welcome to the first issue of Volume 2 of NNERPP Extra! We are honored to have you back with us (and equally honored if you are just now joining us!). We are excited to kick off our second volume of this quarterly magazine.

When we first started working on this issue, we could not have anticipated the uncertain times in which we now find ourselves. As things keep changing rapidly, it is already clear that the impact of COVID-19 on education -- among many other fields and industries -- both nationally and internationally is and will be considerable. In light of these challenges and worries, we hope to offer in this edition a reminder of the difference we can make together when working collaboratively at the intersection of education research, policy, and practice.

In this edition, you'll find:

- **Research Insights:** We invite you to take a tour with us of the different ways our members are studying school climate.
- **RPP Deep Dive:** Here we go deep into exploring the question 'Should RPPs be responsible for producing generalizable knowledge? Why or why not?' with several colleagues.
- **Extra Credit:** In this invited piece, we learn why taking an RPP approach to computer science work can be particularly powerful.
- **Improving Improvement:** Showcasing the work of Proving Ground, we launch a new series in NNERPP Extra with this introduction.
- **Research Headlines:** We share a roundup listing all of our members' research from the past quarter.

We hope you stay healthy and safe. Happy reading!

### 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](http://nnerpp.rice.edu) and follow us on Twitter: @RPP\_Network.

## IN THIS ISSUE

[p. 1] WELCOME

[p. 2] RESEARCH INSIGHTS

Exploring School Climate with NNERPP Members

[p. 8] RPP DEEP DIVE

Should RPPs be Responsible for Producing knowledge that Informs Education Efforts More Broadly? A Multi-View Take on Dimension 4 from the Henrick, et al. RPP Effectiveness Framework

[p. 18] EXTRA CREDIT: SPOTLIGHT

An RPP Approach to Computer Science Work

[p. 21] IMPROVING IMPROVEMENT

Introduction

[p. 23] RESEARCH HEADLINES

## Exploring School Climate with NNERPP Members

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### In This “Research Insights” Edition

We are excited to kick off Volume 2 of the Research Insights series, a space where we bring together related studies from NNERPP members to help our readers stay current on member research, discover how studies are connected, and advance our collective knowledge by generating new questions, ideas, or strategies. To recap Volume I: We have previously covered [early kindergarten transition programs](#), [English Learner time to proficiency](#), and the cautions one should take when comparing across post-secondary research in two parts ([part I](#) and [part II](#)).

In this edition of Research Insights, we take a look at our members’ work in the school climate space – several RPPs are doing work in this area, which should not come as a surprise given its importance in supporting productive learning environments for students.

In putting together this piece, we were struck by the many ways this research is playing out across contexts, including the variety of surveys that were used, the differences in scope across research questions, and ultimately, the various roles each research artifact is playing in the examination of school climate. This is also not entirely surprising, given that partnerships are very attuned to the needs of their practice-side partners, which often look very different across sites. Although we include them below, the focus of this article is not on the actual findings of each individual study; rather, we will take you through a tour of the different ways our members are studying school climate. This is by no means an exhaustive look at what is currently known about school climate, but we hope this tour might serve as a useful starting place in your search for knowledge related to school climate.



### Overview

Before we dive in, let’s take a quick look at the 4 artifacts we’ll examine in greater detail. In Table 1, you’ll find the partnership name in column 1, the title and link to the article or brief in column 2, and in the last column, either the title or description of the survey used in each study.

TABLE 1. Four Research Artifacts Included in This Article

PARTNERSHIP	ARTIFACT OR BRIEF	SURVEY
▶ Cleveland Alliance for Education Research	School Safety Research Brief (2019)	Conditions for Learning Survey, developed by AIR
▶ John W. Gardner Center	Examining Students’ Perceptions of the School Environment: Sequoia High School’s School Climate Survey (June 2013)	Sequoia High School survey, some survey instruments co-developed with Sequoia High School
▶ The Research Alliance for New York City Schools	Schools as Organizations: Examining School Climate, Teacher Turnover, and Student Achievement in NYC (March 2016)	New York City Dept. of Ed.’s School Survey, created by the NYC DOE
▶ Equity Implemented	Student Experiences of School Climate in the Iowa City Community School District (2019)	The Student Experiences of School Climate Survey, created by Equity Implemented

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## Exploring School Climate with NNERPP Members, continued

You'll notice that we have not listed the four pieces in Table 1 in alphabetical order; this is intentional. Instead, this order is capturing an increasing scope and complexity to the work across the articles, either because of the research questions being considered or how demanding the work is on the partnership. For example, Cleveland's efforts represent a landscape scan, something you might take up if you were trying to get an initial understanding of what is being experienced in the schools. The Gardner Center's piece, in contrast, answers more customized and specific questions raised by the practice-side partners. Third on the list is work from the Research Alliance: This piece is a full-on research project, where learning about the current school climate is not itself the aim; rather, the authors study how school climate interacts with other important outcomes: teacher turnover and student achievement. And finally, the Equity Implemented partnership is entirely built around school climate work, with their report representing the most recent one from a whole portfolio of work that includes annual administration of a survey co-developed by the partnership's research and practice-side partners.

It is important to note that we are not advocating for a certain way to conduct this research -- local needs should always dictate how and what research is conducted. Instead, as we showcase the many variations this type of work can take in a partnership setting, we hope to provide ideas on the multiple paths partnerships can take to studying this topic. We would note, however, that the paths partnerships choose to take in studying school climate also have implications for how the respective research might contribute and be applicable to the efforts of others. That is, how is the research or certain aspects of the work informative to another site? We take up this topic in greater detail in the Deep Dive article of this issue. Even as you read through our tour of different research artifacts below, you might notice different research instruments, research questions, research findings, or overall approaches to examining school climate as being more or less applicable to your own context, partnership, and questions/wonderings. We invite you to keep these observations in mind as you learn about four ways partnerships in NNERPP are studying school climate.

### Part I: Four Ways Partnerships Are Studying School Climate

In this section, we present a snapshot of each of the studies listed in Table 1. As you'll see in the tables below, each snapshot includes a short description of the article, the research questions examined in the work (if applicable), the data collected to support the research, a short description of the findings, and links to the article and where available, to related materials.

#### A. CLEVELAND ALLIANCE FOR EDUCATION RESEARCH | School Safety Research Brief (2019)

<b>BACKGROUND</b>	This research brief is one artifact among many that the partnership has or will produce in its efforts to study school climate with the Cleveland Metropolitan School District (CMSD). The partnership aims to increase the capacity of CMSD to better use the findings from its annual school climate survey, as well as gain a better understanding of subgroup differences with respect to school climate. In this particular report they examine school safety, defined as how safe students feel on school grounds, in hallways, bathrooms, and classes.
<b>RESEARCH QUESTIONS</b>	From the IES award <a href="#">announcement page</a> : (1) What is the relationship between school-average student survey reports of school climate and school average standardized test scores and course grades, days of attendance, and suspensions? and (2) within the same school, do certain subgroups of students systematically provide different reports of school climate than others?
<b>DATA</b>	The team worked in partnership with the American Institutes for Research (AIR) to administer the " <a href="#">Conditions for Learning Survey</a> ," which was developed by AIR.
<b>FINDINGS</b>	<ul style="list-style-type: none"> <li>• Students in CMSD, on average, do not view their schools as particularly safe or unsafe.</li> <li>• School safety is positively related to school performance: the safer a school is considered, the better it performs.</li> <li>• Across all grade levels, CMSD students who view their school as safer have higher math and reading achievement.</li> <li>• CMSD students in the middle grades (5-8) and in high school attend school more often when they feel safer at school.</li> </ul>
<b>LINKS</b>	<a href="#">IES Award Announcement Page</a> , <a href="#">CMSD Info Page</a> , <a href="#">Link to School Safety brief</a>

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## Exploring School Climate with NNERPP Members, continued

### B. JOHN W. GARDNER CENTER | Examining Students' Perceptions of the School Environment: Sequoia High School's School Climate Survey (June 2013)

**BACKGROUND** This report shares findings from a study conducted by the Gardner Center, in partnership with the Sequoia Union High School District, examining school climate related measures at one of the district's four comprehensive high schools, Sequoia High School. The project utilized an existing survey administered by Sequoia High School, with the Gardner Center helping to "fine-tune" it by developing a survey instrument to assess students' perceptions of various aspects of the school environment. The Redwood City School District (RCSd) was additionally included in the study, as the team was interested in studying how students' self-reports on a school climate measure changed as they moved from RCSd middle schools to Sequoia High School.

**RESEARCH QUESTIONS**

- How do the results of the Sequoia High School survey differ by grade level, gender, socioeconomic status, race/ethnicity, English learner status, special education status, prior achievement, and other student characteristics
- To what extent does the transition from RCSd schools to Sequoia HS influence 9th grade students' perception of care at school? What are the characteristics of students whose perceptions change across this transition?

**DATA** All Sequoia High School students enrolled in the 2011-12 school year (n = 2,074) were instructed by their guidance counselors to complete the school's climate survey online (between May and August of 2012) in order to obtain their course schedules for the 2012-13 academic year. A total of 1,606 students completed the survey.

**FINDINGS**

- As students' grade point averages increase, so too does the likelihood that they will report high average ratings on their perceptions of Academic Care, Academic Expectations, and Overall Sense of Care at School.
- Female students were more likely than males to report positive ratings on their perceptions of Academic Expectations and Overall Sense of Care at School, all else equal.
- Compared to 12th graders and those without disciplinary infractions, students enrolled in the 11th grade and those with at least one suspension were less likely to report that they experienced a climate of care at school or perceived opportunities to exercise their autonomy and personal decision making.
- Further, the transition from 8th grade in RCSd to Sequoia High School had a positive influence on 8th grade students who reported low average perceptions of overall care at their middle school. Eighth grade students who reported high average perceptions of overall care in middle school continued to report similar high average perceptions in the 9th grade. In this cohort, non-White, non-Latino, and students with at least one 9th grade suspension were less likely to report high average responses on the Overall Sense of Care scale at Sequoia High School, relative to their peers.

**LINKS** [Report](#), also available as a [snapshot](#)

### C. RESEARCH ALLIANCE FOR NEW YORK CITY SCHOOLS | Schools as Organizations: Examining School Climate, Teacher Turnover, and Student Achievement in NYC (March 2016)

**BACKGROUND** Recognizing that there are organizational structures, practices, and norms that may impede or support good teaching, this study set out to explore whether schools that strengthened their organizational context also improved outcomes. Specifically, researchers examined how changes in school climate were related to changes in teacher turnover and student achievement in 278 NYC middle schools between 2008 and 2012.

**RESEARCH QUESTIONS**

- What distinct aspects of school climate were captured in NYC's annual school survey?
- To what extent did improvements in these aspects of school climate predict lower teacher turnover?
- To what extent did these improvements predict student test score gains?

**DATA** Teachers' responses to the New York City Department of Education's (NYC DOE) School Survey between 2008 and 2012.

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## Exploring School Climate with NNERPP Members, continued

### FINDINGS

- The survey captured four distinct, potentially malleable dimensions of middle schools’ environments: (a) Leadership and professional development, which includes teachers’ perceptions of the quality of school leadership, feedback they receive, and professional development opportunities;(b) High academic expectations, which captures the extent to which schools set high expectations for all students, have clear measures of student progress, help students develop challenging learning goals, and support students toward achieving these goals; (c) Teacher relationships and collaboration, which captures the extent to which teachers feel supported by their colleagues, work together to improve their instructional practice, and trust and respect one another; and (d) School safety and order, which reflects perceptions of crime, violence, threatening or bullying behavior, and disrespect towards adults; whether order and discipline are maintained; and whether teachers feel safe at their school.
- Robust relationships were found between these four dimensions of school climate and teacher turnover. Improvements in all four dimensions were independently associated with decreases in teacher turnover.
- Compelling evidence was also found that improvements in schools safety and order and increases in academic expectations for students predict corresponding improvements in students mathematics achievement.

### LINKS

[Technical working paper](#) and [Brief](#). See also [this webpage](#) that includes several additional links related to how the Research Alliance worked in partnership with the NYC DOE to redesign the annual NYC School Survey.

## D. EQUITY IMPLEMENTED | Student Experiences of School Climate in the Iowa City Community School District (2019)

### BACKGROUND

Equity Implemented built an entire [partnership process](#) around this survey, which includes a needs assessment, identification of key focus areas and strategies for the district, the formation of task forces charged with providing feedback to these strategies, implementation plans, and evaluations of initiatives.

### RESEARCH QUESTIONS

The survey includes the following overall topics: Teacher and Adult Relationships, Social and Peer Relationships, Inclusive Classrooms, Safety and Disciplinary Environment, Social and Emotional Learning.

### DATA

Online survey, sent to all 5th through 12th graders in the Iowa City Community School District in February 2019, followed by two reminder emails that same month. The district has been administering the survey since 2016.

### FINDINGS

From the [news announcement](#) accompanying the release of the report:

- On the positive side, there were improvements in several types of student experiences of school climate, reduction in some gender and sexual orientation disparities, and high levels of social and emotional support reported by ELL and IEP students.
- However, there were also declines in some areas including students perception of equitable treatment from teachers and fairness in how discipline is enforced, and the percentage of students hearing hurtful comments from teachers and students increased.
- The data also highlight the presence of persistent disparities by race, gender, sexual orientation, and FRPL (free or reduced price lunch) status in several areas, including racial disparities in teacher relationships, gender disparities in bullying, sexual orientation disparities in classroom membership, and higher numbers of FRPL hearing hurtful comments from teachers
- One of the striking patterns that also stands out in the data is one best described as “advantaging the already advantaged” whereby students who are designated as advanced learners have more positive experiences and fewer negative experiences of school climate on almost every metric in the survey compared to their peers, and whereby students whose parents have advanced degrees also are more likely to report positive experiences and less likely to report negative experiences compared to their peers across a wide range of experiences.

### LINKS

[2019 brief](#), [Website containing annual reports since 2016](#)

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## Exploring School Climate with NNERPP Members, continued

### Part II: Two Additional School Climate Tools to Consider

In addition to the four research artifacts shared above, our scan of NNERPP members' work turned up two more pieces related to school climate, which we discuss below. Although these pieces are not research dissemination efforts, in that their purpose is not to share findings, they both discuss school climate related tools that others might consider using when studying this topic in their own contexts.

#### ▶ 1. BALTIMORE EDUCATION RESEARCH CONSORTIUM | Measuring School Climate Using Existing Data Tools on Climate and Effectiveness to Inform School Organizational Health (2014)

This report provides an overview of four data sources Baltimore City Schools, the practice-side partner of the [Baltimore Education Research Consortium](#), has available related to school climate. These include the School Survey data (Likert-type responses from students, school staff, and parents), the School Effectiveness Review data (school-level data collected by the Office of Achievement and Accountability), Climate Walk data (school-level qualitative data set on climate observations), and Student Surveys on Teacher Practice (student-level responses to Likert scaled questions concerning several school climate related aspects). The affordances and constraints of using each of these data sources to assess school climate are discussed in the report.

The research questions considered include:

- What data are being systematically collected by Baltimore City Schools that can speak to school climate, effectiveness, and organizational health?
- What are the strengths and limitations of each data source?
- How do the different data sources relate and correspond to each other?

The report finds that data from existing tools or measures, even those not necessarily designed with school climate in mind, can be useful in informing school climate efforts – if the tools and measures are aligned with domains and indicators that correspond to each other. The authors additionally propose a tool that would synthesize the data collected from these different sources.

#### ▶ 2. UCHICAGO CONSORTIUM ON SCHOOL RESEARCH | The Essential Supports for School Improvement (2006)



This [UChicago Consortium](#) report goes beyond a single measure of school climate and provides a comprehensive look at what supports schools and communities should consider, one element of which is school climate, when working towards school improvement efforts. The report presents a framework that identifies five “essential supports” critical for school improvement efforts: Effective Leadership, Professional Capacity, Parent-Community Ties, Student-Centered Learning Climate, and Ambitious Instruction. Based on data from Chicago public elementary schools in the 1990s, the framework captures and summarizes evidence-based findings on widely-agreed upon characteristics of good schools. This particular report used a natural experiment within Chicago Public Schools, where there was a great diversity in principal leadership, to explore which supports had the most impact on school improvement efforts. The findings suggest that schools measuring strongly in most of the essential supports were at least 10 times more likely than school weak in most of the supports to show substantial gains in reading in math.

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## Exploring School Climate with NNERPP Members, continued

[An interesting side note here: When redesigning their annual School Survey (the one used in the New York study outlined above), the New York City Department of Education together with the Research Alliance for New York City Schools relied heavily on this research on school improvement by the UChicago Consortium – just one example for how research by one partnership can inform other partnerships' efforts.]

Since the publication of this report, several additional artifacts have emerged, including the following:

- [Organizing Schools for Improvement: Lessons from Chicago](#) | 2010 book by Anthony S. Bryk, Penny Bender Sebring, Elaine Allensworth, Stuart Luppescu, and John Q. Easton
- [The Five Essential Supports for School Improvement](#) | 2014 article by Penny Bender Sebring and Nicholas Montgomery
- [A First Look at the 5Essentials in Illinois Schools](#) | A 2015 report by Joshua Klugman, Molly F. Gordon, Penny Bender Sebring, and Susan E. Spote
- [How a Chicago School is Using Data to Improve School Climate](#) | 2017 EdWeek blog post by Isaac Castelaz

### In Closing

As we've seen in this edition of Research Insights, there are many ways NNERPP members are studying school climate with their practice-side partners, including different tools to measure school climate and differently scoped research questions – and this is to be expected given the localized nature of RPP work. Through the tour of the four research articles, as well as the two additional school climate related resources shared in Part II, we hope to have given you some ideas for your own school climate research. As this is a topic that is gaining importance and is not completely well defined just yet, we are excited to see the next round of research in this area!

- *Paula Arce-Trigatti is Director of the National Network for Education Research-Practice Partnerships. Nina Spitzley, Marketing Specialist with NNERPP, contributed to this report.*

## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly? A Multi-View Take on Dimension 4 from the Henrick, et al. RPP Effectiveness Framework

By Paula Arce-Trigatti | NNERPP

We recently co-hosted a small meeting at NNERPP headquarters (Rice University) with our good friends at the National Center for Research in Policy & Practice (NCRPP) on research-practice partnership (RPP) effectiveness measures. Last year, NNERPP and NCRPP received a grant from the [William T. Grant Foundation](#) to develop a suite of measures that an RPP could use to make evidence-based claims about the effectiveness of their RPP. For this effort, we are building directly off of “[Assessing Research-Practice Partnerships: 5 Dimensions of RPP Effectiveness](#),” a white paper written by Erin Henrick, Paul Cobb, William R. Penuel, Kara Jackson, and Tiffany Clark, and published by W. T. Grant in 2017. The Henrick, et al. Framework is currently the leading piece of literature in the RPP space for thinking about RPP effectiveness – it introduced, for the first time, five dimensions related to RPP effectiveness that partnerships should closely consider in structuring their work, sourced from a number of education RPPs in the field. While this Framework is a key starting point for those interested in assessing the effectiveness of their partnership, it stops short of providing a set of actual measures one can administer – this is the focus of the W. T. Grant funded work we are now collaborating on with our friends at NCRPP.

One of our first tasks in this project was to examine the five dimensions outlined in the Henrick, et al. Framework in greater detail, which we took up with our participants at the January meeting. In this edition of Deep Dive, we share back several interesting insights that arose during our conversations with meeting attendees around Dimension 4 of the Henrick, et al. Framework: “Producing knowledge that can inform educational improvement efforts more broadly.” We invite you to join us as we explore a number of aspects of this dimension, including whether it should be universally applicable to all RPPs, how we might reconcile the fact that RPPs are necessarily hyper-focused on their local problems of practice while this dimension asks them to look beyond the partnership itself, and identifying some of the challenges related to fulfilling this dimension.

### Dimension 4 - Universal Applicability?

As a first step during the January meeting, we took time to revise each dimension’s definition, dividing up our diverse group of participants into teams of 3-4, with each team tackling a dimension. In the course of updating the definitions, teams were asked to consider how that dimension might play out for different types of partnerships, depending on RPP model, age, or quality. As the authors note in the Henrick, et al. Framework, although the five dimensions (listed in Table 1 below) were collectively identified as critical to partnership health during their field-driven data collection, the degree to which any single dimension is a priority for an RPP varies widely. It thus is up to the interpreters or users of the Framework to determine how and to what extent each dimension applies to any given RPP.

**Table 1. The 5 Dimensions of RPP Effectiveness from the Henrick, et al. Framework (2017)**

Dimension 1: Building trust and cultivating partnership relationships
Dimension 2: Conducting rigorous research to inform action
Dimension 3: Supporting the partner practice organization in achieving its goals
<b>Dimension 4: Producing knowledge that can inform educational improvement efforts more broadly</b>
Dimension 5: Building the capacity of participating researchers, practitioners, practice organizations, and research organizations to engage in partnership work

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

For some of the dimensions, it's probably safe to assume that every partnership is likely paying close attention to it – Dimensions 1 (trust building), 2 (conducting rigorous research), and 3 (supporting the practice-side partner) come to mind. Dimension 5 (building capacity to partner), on the other hand, is one where universal applicability is less clear. Although many partnerships most certainly dedicate time and resources to developing their teams' capacity to partner, in some cases less value may be placed on this dimension simply because of the age of the partnership – younger partnerships might struggle with how to operationalize this. Other times, less priority may be placed on this dimension due to existing capacity: perhaps all partners and organizations involved in the work are already quite advanced in terms of RPP-related skills, so there is less need to focus on this aspect of the work.

And this brings us to the focus of this particular article: Dimension 4, producing knowledge that can inform educational improvement efforts more broadly. In stark contrast to Dimension 2 (conducting rigorous research to inform action), Dimension 4 is not focused on local activity but rather the opposite – activity everywhere else. In particular, while Dimension 2 asks a partnership to be hyper-focused on its local partners and use their data to support their improvement efforts, Dimension 4 asks a partnership to additionally be thoughtful in sharing these local findings more broadly. Given the resource constraints that most RPPs face, including time, funding, or



even capacity, can we reasonably expect them to prioritize the spread of knowledge beyond the borders of the RPP? Would we be ok with calling an RPP “ineffective” if they failed to create artifacts meant to engage stakeholders they did not know, in a different state, operating under different rules, and working towards different aims?

Curious about what fellow meeting attendees thought about these possible tensions in Dimension 4, I followed up with many of the folks at our January meeting, asking them to respond to the following prompt:

**Should RPPs be responsible for producing knowledge that informs education efforts more broadly?  
Why / why not?**

While the responses in the next section are not exhaustive by any means, there are a variety of different partnership models and RPP actors represented. As you'll discover, there does appear to be some agreement that this is perhaps an important endeavor for RPPs to consider. There are some disagreements about the value of this activity, though, and there are very practical challenges involved in carrying out this dimension. Let's take a closer look at how folks responded (note that any emphasis by bolding parts of the responses included below was added by me).

### Agreeing with Dimension 4

Several of the colleagues that we invited to participate in sharing their thoughts on the prompt listed above agreed that RPPs should in fact be responsible for producing knowledge that informs education efforts more broadly.

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

Carla Stevens, former Assistant Superintendent for the Houston Independent School District (HISD) and past Associate Director of the Houston Education Research Consortium (HERC) said:

*“While I don’t believe it should be “Goal 1” for an RPP, I do think that all research in general should inform education efforts more broadly if at all possible. From my perspective on the practice side representing the school district, the primary focus of our RPP should be on our jointly developed research agenda which serves to address challenges of the district in closing the achievement gap for all students. However, **in doing the research that directly impacts the district, it makes sense to share the findings to a broader audience as the challenges faced by the district are most definitely not limited to this one district.** Findings from studies, even ones that are very specific to a local context, can still be used to inform efforts in other contexts.”*

Jessica Vasan, Manager at HISD and district liaison for HERC, agreed:

*“In public education, **we have scarce resources and yet probably reinvent the wheel more often than we should.** So wherever feasible, yes, RPPs should produce knowledge to inform larger education efforts. The K-12 educators I have encountered and been fortunate enough to work with over the last twenty years have always been hungry to learn about the latest evidence, rigorously produced, that might inform their practice. We need to make it more accessible for them, and we also need to help them understand how generalizable (or not) the findings may be. They learn about a study and ask, “How would this apply to my students? To my classroom/school/district?” Context matters, and yet the science of reading, for example, is universal. **RPPs hold great promise in producing relevant research using local data that builds on what we’ve already learned in the broader field.**”*

Yuri Kim, Program Officer at the Bill and Melinda Gates Foundation, additionally identified the following reasons for why we might place an expectation of broader reach on RPPs:

*“I do believe RPPs should aim to produce knowledge that informs education efforts across the field. A review of studies of school and district leaders indicates that **research is difficult to access.** There is a clear need for rigorous, evidence-based practices in education and RPPs can fill this need by producing knowledge that informs education efforts across the field.*

*Here’s why **RPPs are uniquely positioned to generate relevant and accessible findings that can be useful and usable in other communities:***

- *RPPs **are purposely designed to create usable and accessible research.** The defined problems of practice are practitioner-focused and lead to findings that impact decision-making in education.*
- *Sharing knowledge beyond an RPP’s own network can lead to the expansion of bodies of research in the field. A great example of this is the impact of the 9th Grade On-Track Indicators research led by the UChicago Consortium.*
- *It is an issue of equity – sharing findings or tools with other communities that may not have the resources to conduct the same kind of research.*
- *Finally, it may benefit the RPPs themselves by increasing their own capacity to communicate and disseminate their work within their network.”*

Rafi Santo, a learning scientist focused on the intersection of digital culture, education, and institutional change, made an additional distinction regarding Dimension 4, RPPs, and consulting work:

*“Yes, I think this [Dimension 4] is a defining feature of RPPs. Once you take this feature out, then you are essentially left with really good evaluation and design teams. This is not necessarily a problem, but they are not RPPs – they are*

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

*purely focused on the local aspect of the work. RPPs are instead simultaneously about the local problem of practice, identified collaboratively with Rs and Ps, engaging in work to improve those local outcomes AND informing broader stakeholders. **Part of the rationale for including an external audience component to the work is that in many good, local evaluations not done in RPPs, there is knowledge lost. How to translate local inquiry into societal knowledge is the shift we are trying to make with RPPs.** And this type of research has high value, especially compared with how research is typically done: for example, actual institutional realities are taken into account with work done in RPPs, things that aren't on the minds of traditionally-based researchers."*

As the four responses above make clear, there are a number of important reasons why, at least in theory, RPPs should fully embrace the responsibility of producing knowledge that can inform the work of others. This is likely to hold even when it might be slightly more challenging to do so, as Fabienne Doucet, Program Officer at the William T. Grant Foundation and Associate Professor of Early Childhood and Urban Education at New York University (on leave), pointed out:

*"It's not a yes or no answer. **Based on the funding strategies of certain RPPs, different funders might feel differently about this dimension.** William T. Grant, for example, is a national-level funder, so one of the things we consider for funding is the potential for learning beyond just this one project. In general, there is a hope that the work that funders support will have lessons that apply more broadly. That said, if RPPs are supported by local funders, they may be less concerned that findings from an RPP would be applicable to broader audiences. For example, a Texas-based funder might not prioritize the relevance of the work for Illinois. Generally speaking, though, I think it's a good goal for an RPP to have. Obviously there will be specific local needs that need to be taken care of but I would hope that we are engaging in an effort to contribute to a larger body of knowledge. **The endeavor of research and practice is such that we can learn things so that other people don't have to learn them all over again.**"*

### Questioning Dimension 4

We next turn to potential cautions participants raised when considering this dimension.

Yetunde Zannou, Program Manager for the Center on Research and Evaluation at Southern Methodist University, shared this observation:

*"I puzzled over "should" and think I'd abandon that to say there's value in RPPs thinking broadly, but acting locally. The purpose of the partnership is to collaboratively solve local problems of practice. That should still remain the top priority. Thinking "broadly" would mean **considering how to document change efforts, routines, etc.** so that others can consider those efforts and take them up as they see fit in other settings. I would not advocate that RPPs produce knowledge just for their immediate context because **even descriptions of how an improvement effort was designed, implemented, refined, and sustained in a real-world setting provides valuable information about what it takes to make an innovation work.**"*

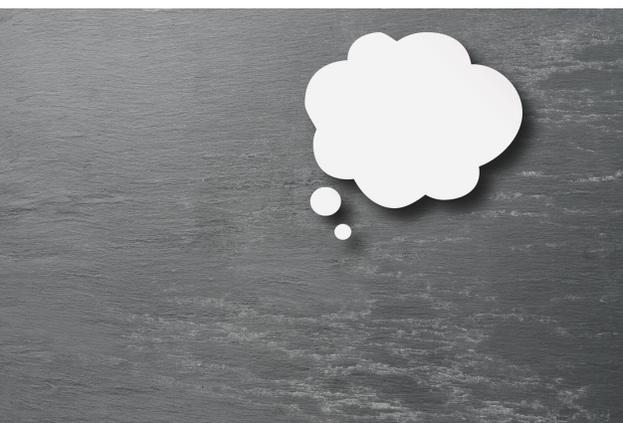
What Yetunde highlights is that there is a particular kind of knowledge that is worth sharing from RPP work: it's not the findings from an evaluation per se that are interesting to another p-side team. It's the work that was done around the problem at hand that is most informative (i.e., "change efforts, routines" from Yetunde's response). While some of this is echoed in "Indicator 2" for this dimension in the Framework (i.e., "the RPP develops and shares new tools and/or routines that can be adapted to support improvement work in other settings," p. 15), the Framework does not explicitly name the documentation of "change efforts" that Yetunde identifies as key to being of broad interest.

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

Enrique (Henry) Suárez, Assistant Professor of Science Education at UMass Amherst, also an RPP participant / organizer, described this possibility in further detail:

*"I tend to be optimistic yet cautious about broader generalizations made from educational research. To be clear, I do think that educational research, in general, and the work of RPPs, specifically, could make significant contributions to how we understand and organize activities around teaching, learning, development, and even schooling. **But, to me, these contributions could come more in the form of expanding and/or refining current education theory and practice, rather than ready-made, plug-n-play, decontextualized ideas, designs, and/or strategies.**"*



*For one, I worry that RPPs may organize their meaning-making around producing generalizable knowledge in ways that incentivize obviating or smoothing out the intricacies from their particular sociopolitical context. Moreover, I worry about **trying to generalize the knowledge from one RPP in one particular context to another RPP in a different context, without first critically understanding the particularities upon which that knowledge is productive.***

*I think I approach this more from the perspective of Design-Based Research (DBR), where the goal is not necessarily to make sweeping statements about teaching and learning, but rather design interventions that change specific aspects of the learning environment and, from there, humbly contribute to theory and practice. The trick, I think, lies in **navigating the tension***

*between co-constructing that localized and contextualized knowledge, understanding its limitations, but also looking prospectively at what aspects of that knowledge could travel to other contexts (similar or different); maybe even anticipating how that knowledge may break when operationalized elsewhere (what some DBR folks refer to as "putting knowledge in harm's way").*

*And I think that's exactly where the responsibility of RPPs should/could lie: **producing knowledge that addresses the jointly-identified opportunities for refining practice in their particular context, while also keeping an eye out for how their meaning-making could be helpful to others.** And I can even imagine various concentric circles of generalization based on the knowledge produced by RPPs of certain scales: partnering with individual teachers could produce knowledge that could be taken to other classrooms; partnering with individual schools could produce knowledge that could be taken to other buildings; partnering with specific districts could produce knowledge that could be used by other systems."*

Finally, there could still be an ideological argument for not taking up the goals outlined in Dimension 4 from the Henrick, et al. Framework.

Adam J. York, Research Associate at the National Education Policy Center and Research Hub for Youth Organizing and Education Policy, explained:

*"In our recent study we interviewed folks working in RPPs and other types of partnerships that were similar to RPPs in some ways. We were focusing on partnerships that included students, parents, and community groups and many employed participatory methods (i.e. community-based participatory research & youth participatory action research). In our conversations, we heard **skepticism over attempts to scale-up findings and apply them out of context.**"*

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

*That is, people were cautious about taking solutions and interventions that were developed in one place and attempting to apply them in other places. **This is especially true for research projects that are closely attending to, and building on, local histories of struggle and social movements for more equitable and just education systems.** Part of these histories include a legacy of top-down interventions from outsiders, including examples of interventions that have harmed students in the long run. However, we also heard examples of powerful sharing across contexts when it came to relating lessons from methodological innovation and strategies for data utilization. For example, a project that has success in encouraging transformative dialogue between community organizers and school district administrators could benefit the broader field through sharing the types of data and approaches to analysis that were most productive in those conversations, even if the specific findings and conclusions were context specific. Similarly, another area where information across settings could help the field is approaches to designing for multiple stakeholders sharing power within projects. **There are lessons emerging in research design that can be useful to those trying to get started building more equitable research partnerships.**"*

As is clear in these insights, the what and the who of Dimension 4 can matter a great deal for the applicability and importance of this dimension to any particular RPP. We next turn to some of the practical challenges related to carrying out aspects of Dimension 4.

### Challenges to Implementing Dimension 4

As we know, RPPs work very hard with their local partners to customize artifacts specific for their needs. Asking RPPs to take up the same exercise for a broader audience, which is not well-defined, and when the research may never be relevant, seems like a tall order. This may be especially cumbersome / burdensome for partnerships that have limited capacity, including resources or time; newly emerging partnerships may struggle with this especially, not because they don't value sharing their work more broadly but because it's simply impossible given the demands on their time in launching the RPP.

To fully understand the scope of the challenges, it is helpful to borrow "supply-side" and "demand-side" framing from economics. That is, Dimension 4 is best thought of as a two-sided problem: on the supply-side, the burden of "producing knowledge" that can "inform educational improvement efforts more broadly" is placed on the RPPs themselves, the suppliers of that knowledge. However, this second phrase, "inform educational improvement efforts more broadly" is also a demand-side problem, where the success of "informing" is dependent on the users of that knowledge. To state it more precisely, one cannot simply assume they have informed someone else and call it a day – the person receiving the information has to confirm they have indeed been informed. Hence, the two-sided nature of this dimension.

This subtle distinction, that users of research form part of the measure of success on this dimension, is not raised in the Framework. As written, the indicators of progress described in the Framework focus exclusively on the supply-side – that is, if RPPs produce a variety of artifacts that can (i.e., have the potential to) inform a broad range of education stakeholders, that is sufficient to be considered "successful" on this dimension. To put it more succinctly, an RPP could do everything "right" in terms of what is described in the dimension and yet fail to inform "education efforts more broadly" since this is the part that depends on the user. Working on this dimension, then, can potentially be a lose-lose, from a cost-benefit perspective.



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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

A related issue that is not taken up in the Framework is what is meant by “more broadly.” This description is quite vague, perhaps to allow a greater number of conditions to meet this criteria. How broad does an RPP need to reach with their work, if they are attempting to be successful on this dimension? For example, for a local, place-based RPP with strong ties to the community they are situated in, would “more broadly” simply be the neighboring community or district? Or is there an expectation that they should try to produce work that would inform state-level or even national-level audiences? Moreover, are both practitioners and researchers the target audience?

Stacey Sexton, an RPP evaluator, researcher of RPPs, and project manager for RPPforCS additionally highlighted how these expectations might differ for a newly formed RPP versus a longstanding one:

*“I’m not sure that it [Dimension 4] is a reasonable expectation **for emerging partnerships**. For long-standing, mature partnerships I think it is a more reasonable outcome to look for because they might have greater capacity to look outside of their own immediate context. **I don’t think that I could support an RPP being penalized if they do not prioritize informing education efforts more broadly**, but I do think that RPPs should want to do this and should include it as part of their maturation plans.”*

We should point out there are existing channels of dissemination that might, in fact, lead to broader use. For example, academic journals are built for just that – to spread knowledge. While this is a narrow audience, it is perhaps a relatively low-cost option for many partnerships, especially for those based at universities, where publishing in peer-reviewed academic journals is a must. The drawback with this option, though, is that we might wonder to what extent academic journals are built to “inform educational improvement efforts” (emphasis mine). Last I checked, there was an overwhelming number of journals that were behind paywalls – inaccessible to those in the world of practice, i.e., those most likely to focus on improvement.

In terms of the demand-side, we have heard from our practice-side friends (i.e., those working in districts or state education agencies) that research produced elsewhere is typically not as useful as research produced using their data for many reasons, most of which can be collapsed into those relating to relevance or accessibility. For example:

- The research question itself may not be of interest to the district or SEA or is not relevant given their current priorities.
- The population of students included in studies produced elsewhere differ substantially from their students, making it difficult to extrapolate how those findings might apply to their context.
- Similarly, the overall context in which the other study takes place might be too dissimilar. For example, we have heard LEA leaders note that other districts or SEAs are generally operating under a different set of rules. So, for example, the Houston Independent School District is governed by Texas state laws; they are perhaps less interested in what Chicago is doing because Illinois state laws differ. (Note that by this same logic, however, Houston ISD would be more interested in what Austin ISD is doing, since they are in the same state.)
- A few additional potential barriers that practice-side folks may encounter when accessing externally produced research include the research sitting behind a firewall or the readers of the research may not have the training or time necessary to translate and interpret the piece.

Although these demand-side challenges are applicable to any situation involving practice-side teams attempting to translate, interpret, and apply externally produced research to their contexts, they carry greater weight when the effectiveness of an RPP depends partly on whether their work is taken up by these teams. Further clarity around who is included in “more broadly” would be helpful, although a recognition that demand-side conditions might still prevent external users from being informed from an RPP’s work is still needed.

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

### Working towards Dimension 4

In this final section, we discuss a number of strategies partnerships may wish to consider as they work towards Dimension 4, recognizing some of the cautions and challenges raised above. Special to this section, we've asked Erin Henrick, President of *Partner to Improve* and lead author of the Henrick, et al. Framework, and Paul Cobb, Research Professor in Math Education and Professor Emeritus in the Department of Teaching and Learning at Vanderbilt University as well as co-author of the Henrick, et al. Framework, to share their thoughts on how partnerships might proceed with Dimension 4.



We begin with timing: One additional aspect that is not discussed directly in the description of the dimension is when partnerships should take Dimension 4 into consideration. For example, should RPPs take broader impacts into account at the same time as they develop their projects—that is, on “Day 1”? Or is it perfectly acceptable to merely do the work one intends to do with local partners, and later, work on translating the research or simply disseminating the findings widely? The latter scenario is somewhat problematic in that research conducted in this vein was never intended to be applicable or relevant to anyone immediately beyond the project; consequently, we should not be too surprised if this research is never taken up by those outside of the partnership.

In terms of addressing this potential issue, Erin and Paul suggest:

*“In our view, the goals of supporting the partner practice organization and producing knowledge to inform education efforts are complementary and should be embedded in RPP study designs from the beginning.*

*One way for RPPs to produce knowledge to inform education efforts more generally is to: 1) **explicitly frame the local problem as a case, and 2) identify the relevant aspects of the local context.** The second step is critically important, so that others can take the contextual information into account and adjust the design to the context in which they are working.*

*Design-based research and design-based implementation research accomplish both goals at the same time. For example, the **MIST Project**, an RPP focused on understanding the conditions necessary to support ambitious and equitable math instruction at scale, studied four cases of large urban districts seeking to improve the quality of instruction for all students. We designed the study to include annual feedback and recommendations cycles to support the improvement efforts of our partner districts but our study design also included longitudinal analyses to develop a broader understanding of what it would take to improve instruction across a large urban school district. In this way, our study design made concurrently achieving these two goals possible. **In our work with district leaders and schools, we supported our partners while also framing the agreed upon problem of practice as a case of a broader issue that is likely to be relevant to a significant number of other districts.**”*

Second, partnerships will need to take into account the what: As shared previously, thinking through which aspects of the RPP effort need to be documented in order for the knowledge to be taken up elsewhere is an important step. According to Erin and Paul:

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

*“It is important to share with others what was learned about how improvements can happen. Describing the processes and mechanisms for how improvements happen can help others working on similar problems. It is equally important, when writing up research findings to share more broadly, that **RPPs clarify the context, so others can adjust the improvement ideas for their own context.** For example, when describing the context in a case of district leaders working to improve the quality of teacher collaborative meetings across a district (something that is very relevant to K-12 educators across the country), it is important to describe prior initiatives and professional development related to teacher collaborative meetings within the district. **It is then critical to describe the processes and mechanisms to help others understand:** What did it take to develop productive teacher collaborative meetings in this context? It’s this kind of sharing that will push forward improvement work on complex problems in challenging settings.”*

Third, how might partnerships allocate their resources to supporting this dimension, given that funding rules and priorities might not support this particular effort? Two potential strategies emerge in this regard: On the one hand, the funders themselves might have a role to play here. Erin and Paul write:

*“At present, the nature of the funder matters for whether informing the broader improvement community is a priority. **But perhaps funders not emphasizing broader contributions need to reconsider.** From our point of view, if you don’t approach this work with the mindset of contributing to broader understanding, a huge opportunity is being missed. We strongly believe that RPPs can learn from other RPPs working on similar issues. If RPPs working on similar issues can share and learn from one another, everyone benefits in the long run.”*

To that second point, RPPs might additionally leverage the dissemination and engagement infrastructures developed at NNERPP – we’ve implemented multiple support strategies to help our members and the field more generally have greater access to the work being produced in the RPP space by reducing the costs associated with sharing work. These include actively promoting our members’ efforts on [Twitter](#), sharing our members’ recently produced research in our twice-monthly [newsletter](#), inviting members to discuss their work with the NNERPP community in our monthly virtual brown bags, updating the [NNERPP Extra website](#) every Monday with recent member headlines, adding a [sortable repository](#) of these headlines, of these headlines, and producing the [Research Insights articles](#) featured in each issue of NNERPP Extra where we synthesize related work from our members.

And while all of these dissemination efforts relate directly to the research produced by our members, we also work hard to pull together RPP-related knowledge our members have in order to advance our knowledge of how RPPs work and how they can work better.

As Ruth N. López Turley, Professor of Sociology at Rice University and the Founder/Director of the Houston Education Research Consortium (HERC), shared:

*“RPPs rely on each other to get started, to overcome the continuous stream of challenges, and to keep learning and improving by sharing both research findings and partnership practices with each other. This is so important that I believe that any RPP that attempts to do this very difficult work apart from a support network of other RPPs is in a very precarious situation. **This is why NNERPP exists,** to make sure that all RPPs, new or mature, have the support they need. **Sharing knowledge with other RPPs and other stakeholders does not need to be difficult or time-consuming. NNERPP exists to facilitate this type of information sharing** and can do so in a way that is not only helpful for those receiving the information but also for those providing it.”*

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## Should RPPs Be Responsible for Producing Knowledge that Informs Education Efforts More Broadly?, continued

### In closing

As we've seen, there are plenty of reasons why Dimension 4 from the Henrick, et al. Framework should be applicable to all RPPs. And at the same time, we've seen why some RPPs might choose not to work on this dimension and why that may be perfectly reasonable as well. In any case, we do encourage RPPs to reflect on their current capacity as well as partnership goals to gain a better understanding of the affordances and constraints influencing their efforts as they work towards fulfilling aspects of Dimension 4.

As Erin and Paul share:

*"As an RPP community, it is important to consider our collective responsibility to not just help the communities we are working with, but to share what we are learning to support other communities without access to expertise and resources available in their own RPP. If all RPPs decided to only focus on their own context, everyone would be reinventing the wheel and not learning from what other people have learned, and we believe the field would suffer. We contend this is what is needed to equitably support education improvement efforts across the country and believe RPPs can support and facilitate this work."*

**What do you think?** Before you go, we invite you to take a moment and share your own thoughts on the prompt "Should RPPs be responsible for producing knowledge that informs education efforts more broadly? Why / why not?". If you'd like to share your insights on this with us, please do so [here!](#)

- *Paula Arce-Trigatti is Director of the National Network of Education Research-Practice Partnerships (NNERPP). She wishes to thank Manuelito Biag, Paul Cobb, Fabienne Doucet, Erin Henrick, Yuri Kim, Ruth López Turley, Rafi Santo, Stacey Sexton, Carla Stevens, Enrique (Henry) Suárez, Jessica Vasan, Adam J. York, and Yetunde Zannou for their important contributions to this piece.*

## Spotlight: An RPP Approach To Computer Science Work

By Stacey Sexton and Rebecca Zarch (SageFox Consulting) and Leigh Ann DeLyser (CSforALL)

What happens in a field where practitioners are finding and fixing problems faster than the researchers know they exist? Hint – it’s why so many technology companies hire PhDs to work alongside their engineers.

In many fields, the day to day challenges are addressed by people we could label as practitioners. They are deeply embedded in the practice of the discipline – producing deliverables, solving challenges, and executing strategies. In recent years, a more data-driven approach to outcomes and improvement has emerged, but most professionals are still far from being trained to design and execute a research study.

Researchers, in turn, have a deep knowledge in one or more methods of exploring important questions. This is a significant difference from simple problem solving, as it often involves determining if an outcome happens by chance or is a result of (or correlated to) a particular intervention or change in practice. In education, as in many fields, these two approaches to examining problems can be powerful when combined.

Computer Science (CS) is one of those fields that changes more rapidly than academics can keep up. CS education is outpacing the research needed to inform it at the K-12 level, as the computing field seeks to instill the skills and the mindsets of computing into primary and secondary grades students. For these reasons, critical partnerships between industry and CS faculty/teachers are not new. Here, we argue that a research-practice partnership (RPP) approach to CS work can be particularly powerful. We also introduce the [RPPforCS](#) community, which forms a macro RPP uniting and facilitating learning among Computer Science and Education researchers, scholars, and practitioners who are engaging in RPPs.

### Why Computer Science RPPs?

The approaches and curricular materials used to teach computer science and computational thinking to students are being freshly developed all the time, and as the opportunities to learn these fields are moving from the realm of elective courses to graduation requirements, more diverse kinds of learners within particular cultural settings across the country and with particular educational needs must be taught. RPPs are particularly suitable for addressing the challenges that come with this rapid development, due to their long-term, trusting partnerships between researchers and practitioners and their focus on actual problems of practice.



An RPP approach to CS work holds promise for shortening the timeline of development and iteration, increasing the fidelity of implementation, and ensuring that research is aligned with the real needs of practitioners. Moreover, the more equitable power share in an RPP –one which honors the expertise of practitioners and works to ameliorate structural power differentials– supports the centering of the voices of CS teachers and other practitioners like guidance counselors, special education teachers, teachers of other subjects, principals, and administrators as new approaches are developed.

Recognizing this, the National Science Foundation began funding a series of CS education research projects through the [Computer Science for All: Research Practice Partnership program](#) (NSF 17-525, 18-537) two and a half years ago. The program focuses on researcher-practitioner partnerships as a model to foster the research and development needed to bring Computer Science and Computational Thinking (CT) to all primary and secondary schools.

The 70+ [CS for All: RPP projects](#) that have since been funded share dual objectives of broadening participation in computing and conducting research in CS education. From there, they differ widely in their foci: Some seek to scale teacher professional development widely, some are investing in culturally responsive curriculum and pedagogy, while yet others may be conducting research on a specific learning tool. The findings from the RPP projects have the potential to improve the CS education knowledge base with practical findings about teaching, learning, and scaling CS.

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## Spotlight: An RPP Approach To Computer Science Work, continued

### Why a Community of Computer Science RPPs?

RPPforCS is a community for the RPP projects funded under NSF's CS for All: RPP program. Together, [SageFox Consulting Group](#), [CSforALL](#), and [CSEdresearch.org](#) submitted a proposal to form and convene this community to provide a venue to study, understand, and report on the project efforts. The group was also interested in establishing a participant-driven, multi-site research agenda for the CSforAll: RPP program to facilitate the understanding of the efficacy of the RPP model and the impact on CS/CT education. To that end, RPPforCS investigates the following research questions:

1. What are the RPP-specific activities and partnership characteristics that shape the extent to which/ways in which RPPs meet their goals for quality CS education?
2. How do different RPPs define and design around different indicators of healthy RPPs and how do they evolve over time?
3. How do RPPs measure their effectiveness at affecting CS education and broadening participation?
4. What is the influence of RPPforCS on the grant-funded community and broader CS education community?

In addition to pursuing this research agenda to gain insights about the potential of RPPs to inform and improve the CS field, we also seek to support the different RPP projects in the community. These projects include a diverse group of CS education researchers and practitioners across the nation, some of which started in their grant funding without an existing partnership at the start of their participation. For newly formed and emerging partnerships, we help connect them to resources in both the RPP and CS research domains, and have created a partnership "Health Assessment" tool based off of the [initial framework developed by Henrick, et al.](#) These projects [have indicated that the tool was useful in early partnership conversations as shared language and trust was being developed.](#) We are also in the position of knowing what's happening in the community of funded projects and to facilitate data collection, analysis, interpretation, and dissemination across the program, and have connected to experts in the field of CS and RPPs to help scale and transfer successful practices among the communities. The goal is to leverage that knowledge to facilitate cross project collaborations and learning.

RPPforCS itself also seeks to use the model of an RPP to build the capacity of the broader community of evaluators and researchers who receive funding from the NSF program, functioning as a sort of macro RPP uniting all the smaller RPP projects of the NSF program.

SageFox has been conducting research and evaluation for nearly two decades with an emphasis on STEM education programs. For the last ten years, CS education has been a cornerstone of our work. CSforALL connects the RPPforCS research community to its ongoing community work and the larger CS education community. CSforALL's membership of over 450 organizations include curriculum authors and program providers, researchers, and local education agencies, including school districts, charter networks, and state departments of education. CSEdResearch.org provides a gateway to research and evaluation instruments for computer science education and leads the effort to advance assessment within the K-12 Computer Science field. Additionally, they provide a dissemination venue for CS for All: RPP projects.

The RPPforCS team also strives to partner with its community in several ways. One, we aim to know our community deeply in order to best promote cross-community collaboration. This includes knowing what each project aims to accomplish, the research questions, characteristics of the partnerships, and key members of each project. We also seek to involve the community in our research and community building activities. We invite community input on our research agenda and have members lead community calls and work with others on conference panels and papers. The RPPforCS community is sharing resources and creating new knowledge that is expanding the field of both CS education and RPPs. We have created internal mechanisms for sharing across projects through research-practice briefs, which are designed to provide examples of how a specific tool is being used or topic being explored by several of the projects in the community. Theme studies go further by trying to generalize the learning about RPPs engaged in CS education across our projects. We convene monthly community calls that focus around a topical area of interest to the community, produce a monthly newsletter with updates from our project and from the community, and have recently begun to convene mini-meetups of our community at relevant events, meetings, and conferences. The most impactful community building activity that we do is a half day meetup co-located with the RESPECT and SIGCSE conferences. These opportunities for face-to-face connection and cross-project sharing are invaluable to realizing the community-building and research goals of our project. At our third annual meet up in early March four pre-conference workshops were organized by community members to delve deeper into shared areas of CS education interest. Nearly 60 people attended these workshops despite moving to a virtual platform for health safety.

## Spotlight: An RPP Approach To Computer Science Work, continued

### Challenges

As with any community, there are also challenges to sustaining cohesive group activity. As we know, RPPs take time to develop and mature. The RPPforCS project team was so excited to be funded and had so many ideas about how to engage the projects that we actually overwhelmed many of our partners at first. Initially, we hadn't taken the time to build up the trust or mutual understanding of purpose that is required to do this type of work. In the iterative nature of an RPP, we then decided to take a step back with our community and technical support activities. The assumption we had at the beginning was that RPP projects would want to deeply engage with us around every data-collection and community participation opportunity. In point of fact, these are busy research projects in their own right, so naturally their time commitments are a bit over subscribed and in many cases faced their own start up challenges delaying the readiness for participation in a community. Our engagement activities now engage participants around themes related to RPP and/or CS education, providing different opportunities for engaging smaller subsets of the community throughout the year.

### In conclusion

Through the RPPforCS community, the team hopes to build the capacity of funded CS RPP projects to engage in partnership work to the end of supporting the nascent CS education research community. We believe that RPPs are a potentially powerful method through which to move the CS field forward and bring quality, evidence-based CS education to all students.

- *Stacey Sexton is Research Assistant at SageFox Consulting; Rebecca Zarch is Director of SageFox Consulting; and Leigh Ann DeLyser is Executive Director of CSforALL.*

## Improving Improvement: Introduction

By David Hersh (Proving Ground) and Jennifer Ash (National Center for Rural Education Research Networks: NCRERN)

“Improving Improvement” is a new series in NNERPP Extra focused on leveraging the power of research-practice partnerships (RPPs) to build schools’, districts’, and states’ capacity to improve. As the leaders of Proving Ground, we are excited for the opportunity to share lessons about bridging the research-practice divide drawn from our experience supporting two continuous improvement networks in the never-ending quest to find better ways to serve students and families. These lessons range from insights about how to support education agencies in tackling fundamental challenges like chronic absenteeism to lessons our partners have learned as they work with us. We’ll also share our “Proving Ground How-to Guides,” short briefs to help practitioners select and implement the interventions partners in our networks have found effective. Finally, we hope that “Improving Improvement” will be a two-way conversation, and you will reach out to us with any questions, comments, or insights of your own along the way.

### Who We Are

We are **Proving Ground**, an initiative of the **Center for Education Policy Research** at Harvard University, that works with local and state education agencies around the country to build their capacity to select, pilot, test, and scale solutions to problems they identify. To support education agencies, Proving Ground operates two networks: a network of larger, mostly urban, school districts (the **Proving Ground Network**) and a network of smaller, rural school districts (the **National Center for Rural Education Research Networks** or NCRERN). The Proving Ground Network currently includes 9 districts serving nearly 360,000 students. NCRERN includes 49 districts serving nearly 60,000 students across Ohio and New York. In both cases, we work with states to help even more of their districts by sharing our networks’ lessons learned.



### What We Do

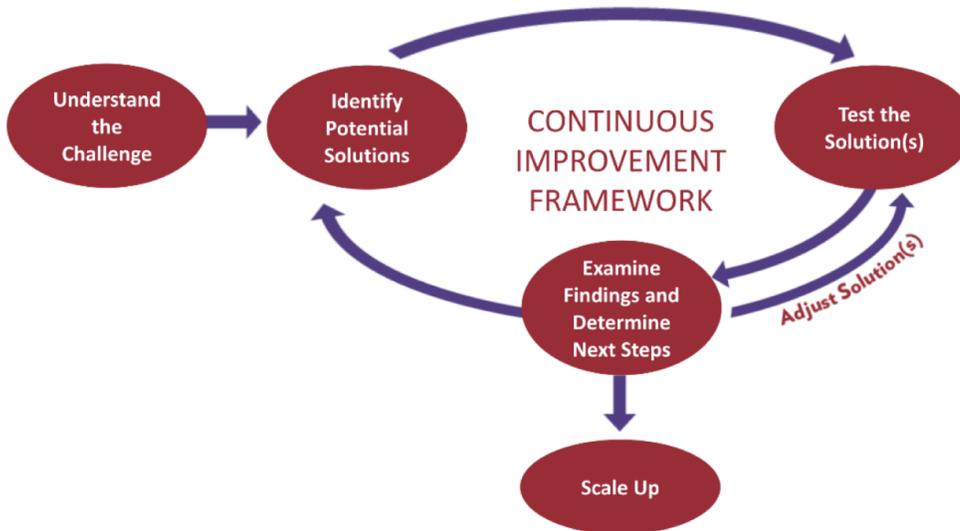
Proving Ground guides partners through a continuous improvement process anchored by randomized controlled trials. First, we help partners use their data to diagnose problems, identify root causes, brainstorm potential solutions, and design and pilot the most promising ideas in their schools. Then, we conduct rapid cycle evaluations of their progress so we can tell them how well their customized solution worked, often in less than a semester. Finally, we help them use the evaluation results to decide whether to scale

up, modify, or drop their piloted solution. Throughout the process, we help our partners engage stakeholders – especially students, families, and staff – to improve design and implementation, increasing the chance that their solutions will work.

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## Improving Improvement: Introduction, continued

### The Proving Ground Process



### Results So Far

We are just getting started with our rural partners in NCRERN – they will select and design their first interventions in April. Our Proving Ground Network partners, however, have completed two improvement cycles with us. In those cycles, they’ve collectively executed over 20 pilots covering 9 interventions. Six interventions, ranging from messaging to mentorships, cost-effectively improved attendance. Three interventions did not have enough impact to justify their cost. Our partners have scaled the cost-effective interventions and discontinued the rest. Along the way, they’ve become better consumers of their own data and engaged hundreds of students, families, and staff in constructive conversations. We’re looking forward to tackling new issues with new partners in the months and years to come.

**RESOURCE:** One of the effective interventions, postcards to parents of early-grade students, is the subject of the first [PROVING GROUND HOW-TO GUIDE](#), hyperlinked here. We hope you’ll read it and suggest it to the agencies you work in and with.

### Looking Ahead

In future installments of “Improving Improvement”, we’ll share our experience working with both large, urban districts and small, rural ones and dive deeper into our continuous improvement approach. Also look for case studies co-authored by our partners, and lessons learned for practitioners hoping to bridge the research-practitioner divide. We are also always open to additional suggestions for topics for future editions of “Improving Improvement”. Reach out to us with any questions you have about our networks, continuous improvement process, or ideas you’d like to see us tackle.

- *David Hersh (david\_hersh@gse.harvard.edu) is Director of Proving Ground and Jennifer Ash (jennifer\_ash@gse.harvard.edu) is Director of the National Center for Rural Education Research Networks (NCRERN).*

## Research Headlines From NNERPP Members: Last Quarter

### CHARTER SCHOOLS

#### OFFICE FOR EDUCATION POLICY

examines trends in northwest Arkansas charter enrollment

### CURRICULUM

#### MADISON EDUCATION PARTNERSHIP

examines the implementation of a new mathematics curriculum and differential effects among English Learners

### EARLY EDUCATION

#### BOSTON P-3 RESEARCH-PRACTICE PARTNERSHIP

examines pre-k to third grade alignment

#### HOUSTON EDUCATION RESEARCH CONSORTIUM

examines pre-k access

#### OFFICE FOR EDUCATION POLICY

examines K-2 assessments

#### REL MID-ATLANTIC

explores the development of a school-level measure of student achievement growth for early elementary grades

#### REL NORTHEAST & ISLANDS

examines enrollment patterns in Vermont's universal prekindergarten programs

### ENGLISH LEARNERS

#### ODE/OSU ENGLISH LANGUAGE LEARNER PARTNERSHIP examines

- English Learner outcomes
- English Learner's time to proficiency
- Access to core content for secondary English Learners
- Newcomer students in Oregon schools
- Disproportionality in special education for English Learners
- Family engagement for English Learners with disabilities

### HIGH SCHOOL

#### OFFICE FOR EDUCATION POLICY

examines trends in high school graduation rates in Arkansas

### POST-SECONDARY

#### UCHICAGO CONSORTIUM

studies predictors of college outcomes

### TEACHERS

#### EDUCATION RESEARCH ALLIANCE FOR NEW ORLEANS

examines teacher quality

#### REL NORTHWEST

examines educator turnover in Alaska

#### UCHICAGO CONSORTIUM

examines teacher evaluation

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## 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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*NNERPP is made possible through generous funding provided by the William T. Grant Foundation, Bill and Melinda Gates Foundation, Spencer Foundation, Annie E. Casey Foundation, and The Wallace Foundation.*