**Symposium Title:**

Strengthening Practice and Policy through University-District Partnerships: Embedding Evaluation in NYC’s Pre-K for All

**Symposium Justification:**

Public and private investments have led to greater rigor in educational research, on one hand, and a push for districts to implement evidence-based programs, on the other. Despite these parallel and seemingly reinforcing trends, the gap between research and practice remains large (Tseng, 2012). Scholars, practitioners, and policymakers have increasingly called for greater usability of research (Tseng, 2012) and greater innovation in the ways social science is deployed to solve educational problems (Bryk, 2009; Easton, 2014; Raver, 2013). As suggested in a SRCD Social Policy Report and as called for by leaders in education science, developing research-practice partnerships may be a uniquely effective strategy for producing relevant research findings and supporting practice and policy (Easton, 2012; Tseng, 2012).

A strong example of this approach is taking place in New York City, where leaders in economic development, educational improvement, and early childhood education are currently undertaking arguably one of the most rapidly- and broadly-deployed educational policy initiatives in the nation under “Pre-K for All” (PKA). Through PKA, the city has dramatically expanded free, full-day, high-quality pre-kindergarten programs to NYC’s four-year-olds, transforming a system that originally served 19,000 students in 560 sites to one that served 53,000 students in 1,350 sites in the first year of expansion (2014-2015) and 68,500 children in 1,850 sites in 2015-2016. While the speed and scale of this expansion is impressive by itself, what has been equally noteworthy is the commitment on the part of these policy and practice leaders to using data and research to simultaneously strengthen the system of pre-K quality.

This symposium presents two studies underway in two research-practice partnerships between researchers at New York University and city leaders in the Division of Early Childhood Education at the Department of Education. The papers in this session will describe these partnership projects and highlight how they built from efficacy studies to embedded evaluations within the existing system of PKA services. The first two presentations, by two separate but coordinating university research teams, will provide the details of the embedded evaluations. Rather than developing efficacy studies divorced from the activities of policymakers delivering services to families on the ground, these efforts demonstrate how to address questions as they emerge within the system while simultaneously building the capacity of city agencies to engage in continuous quality improvement through the collection and ongoing analysis of data. The third presentation, presented by policy leaders, will discuss the “practice” view of this work. John Easton, as discussant, will address implications of these partnerships for policy change.
Embedding Research into a City-Wide Professional Development System for Universal Pre-K: The Development of the “Explore” Evaluation

Authors: Pamela Morris (presenting), Natalia Rojas, Rachel Abenavoli, & Elise Cappella
New York University’s Steinhardt School

Background

While pre-K, on average, has been linked to positive academic and behavioral child outcomes (Camilli, Vargas, Ryan, & Barnett, 2010; Yoshikawa et al., 2013), there is clear evidence that higher-quality experiences within the pre-K classroom are associated with gains in children’s school readiness skills (Barnett, 2011; Burchinal et al., 2008; Keys et al., 2013; Yoshikawa et al., 2013). Teacher professional development and the use of developmentally-appropriate classroom curricula stand as hallmarks of preschool programs that produce the largest improvements in classroom quality and children’s school readiness (Hanushek, 2011; Mashburn et al. 2008; Sarama, Lange, Clements, & Wolfe, 2012; Weiland & Yoshikawa, 2013). Documenting the efficacy of specific programs is a critical step in the research-to-practice translation, but there are several remaining questions of great relevance and practical importance to policymakers and district leaders, who face real-world decisions about adopting particular instructional practices and allocating limited resources. Most importantly, city leaders want to know how these programs work when embedded in a full-scale universal system. In NYC, we are addressing such a question as part of the city’s expansion of pre-K under Pre-K for All (PKA; the city’s commitment to providing free, full-day, high quality pre-K to every 4-year-old in NYC launched in 2014).

This project is embedded in an ongoing partnership that has developed over the past several years between researchers at the Steinhardt School at New York University and NYC’s early education leaders in the Division of Early Childhood Education at the Department of Education (DECE-DOE). The partnership was initially designed to address relatively straightforward descriptive questions and present information in easy-to-read visual displays to help city leaders “take the pulse” of children and schools as they rolled out the historic program (see Table 1). It has since evolved to comprise co-development of an increasingly robust research infrastructure for ongoing quality monitoring of PKA. This presentation discusses a research study embedded in the partnership (our 2016-17 effort on the table below)—that will allow us to jointly evaluate a key component of the professional development system of PKA.

Purpose

A centerpiece of PKA is four professional development tracks to which sites in PKA are assigned through a complex multivariate process that responds to both site interest and need. The aim of this presentation is to present the background, design, early findings, and planned next stage of research, of a study designed to assess one of the tracks—known as NYC Pre-K Explore--within this innovative model of professional development of the PKA program.

As part of the early phase of the partnership, we together reviewed evidence-based models and DECE-DOE selected an evidence-based math curriculum known as Building Blocks with evidence of effects on teacher math practices and outcomes for children (Clements & Sarama, 2008; Sarama, Clements, Starkey, Klein, & Wakeley, 2008), integrated with research-
based interdisciplinary units developed by the DECE-DOE to embed math learning in other areas such as social-emotional development, literacy, science, and social studies, for one of the PKA professional development tracks. This track is known as “NYC Pre-K Explore” and is the focus of our research effort described here. This work was developed at the same time as a large-scale randomized study by MDRC was being conducted to rigorously test the importance of early math skills by examining teachers’ implementation of Building Blocks in 69 preschools housed in public schools and community-based settings in New York City. This presentation will describe the study designed to examine the impact of NYC Pre-K Explore as well as discuss a future planned effort to evaluate all of the tracks.

Research Design

In total, 265 pre-K sites were selected to participate in this research initiative. These sites are similar in demographic characteristics to the larger pool of 459 NYC Pre-K Explore sites across NYC’s PKA program. All selected sites began implementing NYC Pre-K Explore in the 2016-17 school year.

This study involves two complementary designs for studying the impact of NYC Pre-K Explore. First, we leverage a natural experiment that occurred in a subsample of approximately 90 sites, half of which would have been assigned to the NYC Pre-K Explore track based on criteria used for site selection, but were not assigned due to the timing of funding decisions. This provides a strong test of the effects of NYC Pre-K Explore on classroom quality. A larger sample will be used for a complementary study that controls (using a propensity score analysis approach) for observed differences between NYC Pre-K Explore and sites assigned to other tracks, providing a wider sample for generalizable estimates. All data and measures are embedded within the city’s research infrastructure (and, as such, focus on CLASS scores as the primary outcome measure), alongside with fidelity tools that are being jointly developed as a part of this partnership evaluation effort.

We will also present the design of a proposed next-stage study, in which we plan to leverage the naturally-occurring randomization of children to “treatment” and “control” groups through NYC’s complex application assignment algorithm to children to oversubscribed sites, where we hope to build on this current effort by estimating causal impacts of enrolling in sites in three of the four different professional development tracks using an instrumental variables approach.

Conclusion

By helping NYC leaders answer questions of high practical relevance with rigor as PKA is implemented at scale, we aim to provide the kind of information that NYC policymakers overseeing the initiative need to strengthen the PKA program and thus meet its long-term goals of supporting the learning and development of all NYC children through universal pre-K. But as importantly for the field, our efforts stand as a model for how to embed evaluation into ongoing systems to inform policy leader’s delivery of services for at-risk children and families.
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<th>Year</th>
<th>Activity</th>
<th>NYC DECE-DOE</th>
<th>NYU</th>
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<tr>
<td>2014-2015</td>
<td>PKA expansion</td>
<td>• Hired 1,000 new teachers</td>
<td>• Partnered with outside evaluation team on direct assessments of neurodevelopment</td>
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<td>• Trained more than 6,000 teachers, assistants, and paraprofessionals three times in year</td>
<td>• Completed 1,000 child assessments</td>
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<td>• Expanded cadre of on-site instructional and social work staff</td>
<td>• Used data visualization tools to map sites and slots in NYC neighborhoods</td>
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<td>2015-2016</td>
<td>Strengthen evidence-informed professional development system</td>
<td>• Co-developed and released research-based quality standards</td>
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<td>• Differentiated professional development (PD), including lanes with evidence-based curricula (e.g., NYC Pre-K Explore), and co-designed methodology for lane assignment</td>
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<td></td>
<td>• Co-constructed data-based decision-making process for allocation of coaching support</td>
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<td>2016-2017</td>
<td>Study professional development system implementation and outcomes</td>
<td>• Merged and analyzed site-level data to enable mapping of teachers to PKA sites across city</td>
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<td>• Co-developed quasi-experimental pilot study of specific PKA tracks, capitalizing on infrastructure of DECE-DOE’s regular CLASS assessments</td>
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<td>• Recruited 45 sites and 600 staff to complete survey on teachers’ receipt of formal PD, participation in informal advice networks, and experience of work stress and support</td>
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Scaling Family-Centered Pre-Kindergarten to Reduce Socioeconomic and Racial/Ethnic Disparities in Learning, Behavior and Health

Authors: Laurie Miller Brotman (presenting); Spring Dawson-McClure; Demy Kamboukos; Dana Rhule; Katherine Rosenblatt; Yen Huang; Gaby Barajas-Gonzalez; and Esther Calzada

New York University’s School of Medicine

Background

Children’s brains are optimally programmed to benefit from high-quality experiences during early childhood. Accordingly, a strong early foundation provides the greatest potential for positive development across domains of learning, health and development. There is substantial evidence that nurturing relationships and predictable interactions with parents and other caregivers can buffer the impact of poverty-related stressors and adverse childhood experiences. ParentCorps is a family-centered, school-based intervention that aims to help parents and early childhood teachers to create safe, nurturing and predictable environments to ensure that all children develop foundational social, emotional, and behavior regulation skills. ParentCorps is delivered as an enhancement to Pre-Kindergarten (Pre-K) programs in schools serving large numbers of low-income children. Intervention includes professional development for Pre-K and kindergarten teachers and a program offered to all families of Pre-K students, implemented by mental health professionals and teachers. Two cluster randomized trials of ParentCorps found impact on early childhood health and development. Evidence of impact on home and classroom environments was based on parent and teacher report and observations of adult-child interactions by raters masked to condition. In the second trial, ParentCorps was found to impact achievement test scores and teacher ratings of academic performance and mental health problems through second grade. Effects on academic achievement and mental health were observed across the full spectrum of baseline pre-academic and self-regulation skills.

Purpose

As part of ThriveNYC, a citywide, mayoral initiative to support the mental health of all New Yorkers, NYC Pre-K Thrive aims to promote family engagement and social-emotional learning in Pre-K. In collaboration with the Department of Education’s Division of Early Childhood Education (DECE), NYU Langone’s Center for Early Childhood Health and Development is supporting sustainable high-quality implementation of ParentCorps in 50 Pre-K programs, and spreading ParentCorps evidence-based practices to 300 additional Pre-K programs through professional learning for Pre-K program leaders and teachers. In addition, all 1850 Pre-K programs serving nearly 70,000 Pre-K students annually will be supported by professional learning for the entire workforce of 125 DECE social workers and city-wide dissemination of evidence-based tools to promote family engagement and social emotional learning. This paper describes this three-year partnership to implement, evaluate and improve family-centered intervention at scale within the largest urban school district in the country.

Research Design

NYU researchers are collaborating with the DOE's Division of Early Childhood Education and the Research Policy and Support Group to design an evaluation plan that answers questions critical to the field of early education and considers questions about resource allocation and best
practices related to scaling ParentCorps and evidence-based practices for family engagement and social emotional learning in the context of NYC Pre-K Thrive and the large complex DOE system. We plan to carry out a series of embedded random assignment studies to evaluate key questions such as: What is the relative value of professional learning and ParentCorps Programs for Parents and Pre-K Students, versus professional learning alone on teacher, family and child outcomes?; What is the relative value of coaching for Pre-K leaders and teachers by DECE social workers provided twice a month versus weekly on classroom environment and adoption of evidence-based practices. We will make use of high-quality administrative data on family engagement and classroom environment already collected by the NYC DOE as part of standard practice. In addition to these randomized experiments that consider both administrative and supplemental data, we will utilize implementation science frameworks (e.g., Metz, Naom, Halle & Bartley, 2015) and draw on the science of improvement, an emerging framework for research on strategies to improve health care and education (e.g., Bryk, Gomez, Grunow, LeMahieu, 2015). This process involves iterative cycles to turn promising ideas into workable processes, useful tools, and more productive work environments. The goal is to build practice-based evidence or the “know how” to effectively engage families and yield positive child outcomes consistently across diverse settings. We will also use the Stage-based Framework for Implementation of Early Childhood Programs and Systems recently published by the Administration for Children and Families (Metz et al., 2015) to do this systematically. The framework was developed with the intention of providing guidance for researchers, practitioners and policymakers on the salient tasks at each stage and the real timeline and costs of an effective implementation process. The framework is grounded in the implementation science literature and focuses on three core elements: 1) building and using teams to actively lead implementation, 2) developing an implementation infrastructure, and 3) using data and feedback loops to drive decision-making and promote continuous improvement.

Conclusions

Family-centered Pre-K that incorporates evidence-based practices with teachers, families and children holds great promise for reducing socioeconomic and racial/ethnic disparities in learning, behavior and health. Embedding evidence-based interventions in schools and early childhood centers makes population-level reach possible. This process requires a major investment of resources and low family engagement and implementation quality may undermine the public’s will to sustain such an investment. Careful study of family engagement, implementation quality and use of data for continuous improvement are essential to ensure success. As we make progress in partnering with school districts and other child-serving institutions to implement family-centered evidence-based interventions, impacts of the intervention and the success of their efforts to engage families are likely to be mutually reinforcing – gradually supplanting the disempowering experiences that low-income families and parents and children of color so often have in public institutions.
Paper 3: Dynamic partnership, promising innovations: New York University and NYC's Department of Education collaboration to strengthen curriculum and family engagement in pre-k programs through ongoing and non traditional collaboration

Authors: Josh Wallack (presenting) and Sophia Pappas, Department of Education

Building off of some of the themes from our panel at last year SREE conference, NYC DOE proposes using the Explore and Thrive evaluations as a way to demonstrate the dynamic evolution of our partnership with NYU and the benefits of this approach for both strengthening practice and the research base on quality building efforts in pre-K.

There are two features of this partnership we would like to highlight:

First, while many research-practice partnerships involve researchers running a carefully designed randomized controlled trial on one program for a long period of time, NYU is willing to collaborate with NYCDOE as we introduce multiple new program features and interventions to an expanding program. We are doing the best we can to isolate effects with careful design, but the research teams understand that they will be running their evaluations in a complex, changing program environment. Setting aside the usual long-term research-to-practice loop, we are all working fast to come up with a set of “good-enough” measures that will boost program quality for the most programs in the least time.

Second, we are thinking hard together about which tools are best to measure our progress given the specific moment in the life of NYC’s pre-k program. Specifically, we are moving away from the effort to measure outcomes at the end of every pre-k year, and instead thinking together about how we might want to focus first on quality as measured by CLASS, both because we know these measures are linked to outcomes but also because we believe the measurement itself will have an incentive effect on teachers and leaders that will shape their practice early on. Once the program has been running for longer, we will think together about a next set of tools that will allow us to look at outcomes, and also potentially refine our sense of quality, and produce different incentives in the system.

The Explore and Thrive evaluations exemplify these approaches. In both cases, the initiatives developed in part through consultation with NYU that leveraged their existing expertise. Together, these two initiatives are key levers for ongoing quality building in hundreds of Pre-k for All sites.

Pamela Morris brought expertise about the Building Blocks math curricula and existing research on Building Blocks from her work with MDRC on the Making Pre-k Count Study. Moreover, after walking us through an exercise of identifying NYC’s core priorities in implementing NYC Pre-K Explore, her team provided a research-based analysis of several early childhood curricula to help us choose one for a subset of our programs. NYU was able to meet tight deadlines throughout this process largely because of our weekly calls that built up their understanding of our context over time. As the Explore initiative developed and interest grew in studying the initiative, we shaped the parameters of the study with Morris and her team to inform our
understanding of how to build on strengths and refine the training and support model to advance overall program quality improvements.

Similarly, we’ve worked alongside Laurie Brotman to develop the Thrive initiative and study in similar ways. NYC Pre-k Thrive grew out of a citywide initiative to support the mental health of all New Yorkers, birth through old age. NYU demonstrated through a procurement that they could develop both the program and research design to support a Thrive intervention at the pre-K level focused on social emotional learning, behavioral regulation and family engagement. The proposal drew from the extensive programmatic and rigorous research work ParentCorps previously did in NYC pre-k classrooms. When recommended for award, ParentCorps began intensively planning the programmatic implementation and research study.

In both the Explore and Thrive studies, metrics used help inform practice and contribute to the research on the effectiveness of early childhood education supports. We use valid and reliable program assessment tools already used in our pre-k program and programs across the country. We are also adopting new tools or adapting existing tools in order to address gaps in existing measurements.

The findings of these studies and process used to develop them have the potential to inform practice and research in important ways. In addition to providing insights for DOE on how to refine Prek program supports, NYC Prek Thrive and Explore will demonstrate what happens when early childhood programmatic initiatives are borne out of dynamic exchanges between policymakers and researchers.