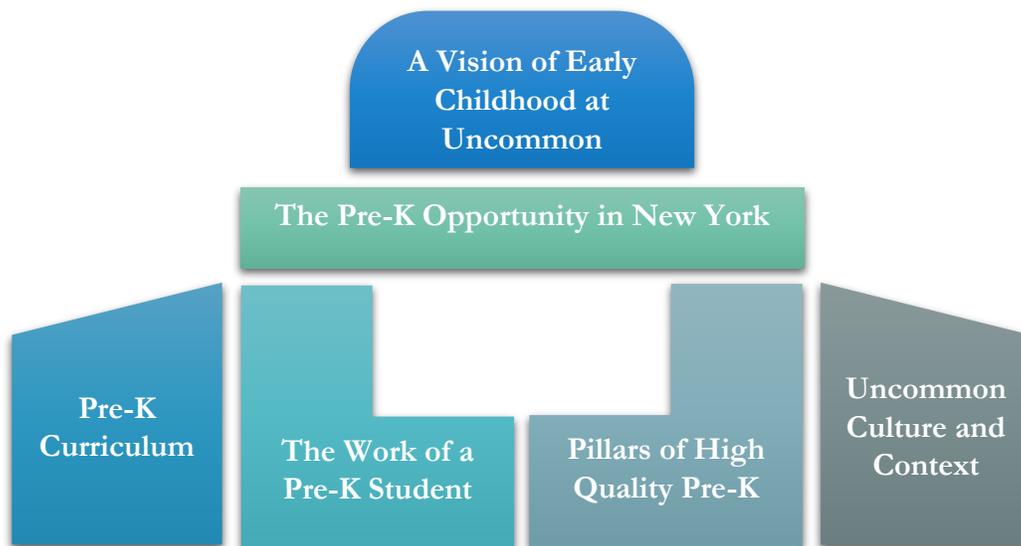


Pre-Kindergarten at Uncommon Schools: Building Blocks for Early Childhood



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This PAE reflects the views of the authors and should not be interpreted as representing the views of the PAE's external client, nor those of Harvard University or any of its faculty.

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Executive Summary

The increase in Pre-Kindergarten funding in New York catalyzed Uncommon Schools to ask:

What operational and instructional model, if any, for Pre-Kindergarten would further Uncommon School's mission in Upstate New York?

Our investigation suggests that Uncommon would benefit from high-quality Pre-K and already has some components of readiness to implement it. Our research and visits to high-quality Pre-Ks highlight the following features as critical to developing high-quality Pre-K: play, language development, parent engagement, a focus on social-emotional development and a strong morning meeting as well as some explicit academic instruction, an intentional classroom environment, and strong systems and routines.

We recommend Uncommon Leaders:

- Spend the 2015-2016 school year planning the launch of Pre-K for the 2016-2017 school year. Make use of the best practices we have identified. We recommend choosing to pilot in an elementary school with an enthusiastic principal who has demonstrated a commitment to understanding early child development.
- Visit the following high-quality Pre-K programs to see best practices: *Pre-PAVE*, *Coop*, *KIPP Grow*, *DC Prep* and *UDC*.
- Investigate Pre-K curricula, specifically Tools of the Mind, to use as a framework.

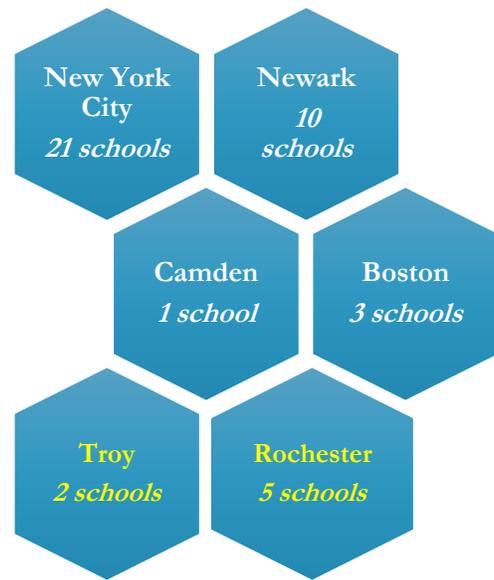
We also recommend that:

- The school where Uncommon launches Pre-K has early childhood expertise in the building because it is so different from a K-12 program. If funding permits, there should be highly experienced lead Pre-K teachers as well as a highly experienced Pre-K principal who could provide instructional coaching. If funding is less available, we recommend providing extensive training to an elementary school principal in Pre-K best practices. All Pre-K teachers and leaders should be extensively trained in language development strategies.

Uncommon Schools Background

Uncommon Schools is one of the nation's leading charter school management organizations. Uncommon was founded in 1997 with the mission to “start and manage outstanding urban charter public schools that close the achievement gap and prepare low-income students to graduate from college.”¹

The organization currently manages 42 schools across New York, New Jersey and Massachusetts. All schools in the network share a longer school day, a longer school year, and a strong focus on literacy and math. Additionally, all schools have a college preparatory mission, highly-structured learning environments, and focus on data-driven instruction.



Uncommon is recognized for its students' high achievement. 100% of the graduating class of 2013 was accepted to four-year colleges. That same year, high school students averaged 1688 on the SAT, 138 points above the college readiness benchmark established by the College Board and 190



points above the national average.² The Center for Research on Education Outcomes at Stanford reported that attending an Uncommon School “completely cancel

out the negative effect associated with being a student in poverty.”³

Uncommon Schools are organized into five regional networks (New York City, Upstate New York, Boston, Newark, and Camden). In 2006, the Uncommon Upstate New York region opened its first school in Rochester. In 2009, the region expanded to Troy.

The Pre-Kindergarten Opportunity in New York State

Last year, the New York State Department of Education released a Request for Proposal (RFP) for public Pre-Kindergarten funding. Under this RFP, six charter schools, all in New York City, applied and launched Pre-K in the 2014-2015 school year. They applied as part of New York City's consolidated application, instead of as individual applicants. For all of these schools, Pre-K students have the enrollment preferences to "automatically" feed into the school's Kindergarten program the next year. The six schools are:

- Academic Leadership Charter School
- Bronx Charter School for Better Learning
- Hellenic Classical Charter School
- Renaissance Charter School
- Rochdale Early Advantage Charter School
- NYC Montessori Charter School

However, the RFP was not considered favorable to New York City charters because although the reimbursement rate was up to \$10,000/child, New York City used some of that money for administrative support without providing much administrative support.

Under the RFP, there is an annual renewal process. Applicants receive \$10,000 per pupil for programs where the classroom teacher is licensed for early childhood. \$7,000 per pupil will be provided for programs where the lead teacher does not have an early childhood license.

To apply, programs must be full day (at least five hours) and for the full school year (at least 180 days). Children must be four years old on or before December 1st of the year in which he or she will enroll or otherwise eligible to attend public school Kindergarten the following school year. The maximum class size is 20 students. For classes up to 18 students, there must be at least one teacher and at

Highlights of requirement the RFP:

- Five hours/day
- 180 days/year
- \$10,000/per pupil where teacher holds early childhood license
- Maximum class size is 20 students
- Curriculum must align with NYS Pre-Kindergarten Foundation for the Common

least one paraprofessional, while for classes of 19 or 20 students, there must be at least one teacher and at least two paraprofessionals.

Schools that apply must use a written curriculum or curriculum framework that aligns with the New York State Pre-Kindergarten Foundation for the Common Core and ensures continuity with the Common Core State Standards in English Language Arts and Math.

The RFP includes a consolidated and individual application process. Under the consolidated approach, the school district is required to solicit participants (such as non-profits like Uncommon Schools) and other community organizations to be included in its' application. Uncommon could submit an individual application only if they are excluded from the school districts' consolidated application, so long as they provide written verification from the school district that they were denied. If the school district does not submit a consolidated application, Uncommon would be considered "denied by default" and could submit an individual application.⁴

Under the RFP, selected programs will be inspected at least twice per school year and are required to submit a report at the end of each year to demonstrate that they have met the requirements in the RFP.

Problem Statement

CENTRAL QUESTION

What operational and instructional model, if any, for Pre-Kindergarten would further **Uncommon School's** mission in Upstate New York?

SUBORDINATE QUESTIONS

- 1) What does high-quality Pre-K look like?
- 2) What instructional models lead to academic and social-emotional gains for students?
- 3) How have other “no excuses” charter schools implemented Pre-K?

Methodology



Uncommon School Visits and Interviews: In order to assess the existing early childhood philosophies of Uncommon stakeholders and understand the organization’s readiness for Pre-K, we visited two Uncommon Schools (Troy Prep Elementary School and Leadership Prep Canarsie). We also interviewed teachers and school leaders at Rochester Prep Elementary School and Rochester Prep Elementary School West Campus.

Analysis of Uncommon’s Kindergarten Data (Upstate Region): Uncommon Schools collects data about whether or not their incoming Kindergarteners attend Pre-K. We used this data to learn about the current Pre-K environment in the region. We also used Uncommon’s reading assessments given throughout each school year to determine more about student learning during Kindergarten.

Review of Pre-K Literature: We reviewed scholarly research on curriculum, program models, and human capital development in the Pre-K setting.

Pre-K School Visits and Interview: We visited 12 schools in New York, Washington D.C. and the Boston Area. These schools were identified by leaders in the field and are known to have strong Pre-K programs. During our visits we used a classroom observation protocol (see Appendix 1), which we developed through a review of Pre-K assessment literature. We observed for: student learning, teacher-student interaction, classroom environment, and curriculum models. We also interviewed teachers and school leaders (using the interview protocol in Appendix 2) to learn more about the curriculum, philosophy, and operational side of their program. We selected a mix of programs that included other highly structured charter school models — peers of Uncommon — as well as other high-quality programs including both public and private schools.

Uncommon Culture and Context

In order to understand Uncommon’s culture and current beliefs about early childhood, we interviewed Uncommon school leaders and teachers in Troy, Rochester and New York City:

Rochester:

- Jamie Brillante, Rochester Prep Elementary School (RPES) Principal
- Emily Berwind, RPES Kindergarten Teacher
- Emily Volpe, Rochester Prep West Campus Elementary School (RPWES) Principal
- Kimberly Schultz, RPWES Dean of Curriculum and Instruction

Troy:

- Katie Yezzi, Troy Prep Elementary School (TPES) Principal
- Zenovia Duke, TPES Kindergarten Teacher, former Pre-K educator
- Jamie Williams, TPES Kindergarten Teacher and Dean of Students

New York City:

- Emily Hoefling, Leadership Prep Canarsie (LPC) Principal
- Mallorie Bocachica, LPC Kindergarten Teacher, former Pre-K educator
- Nicole Collins, LPC Learning Support Coordinator, former Pre-K educator
- Christine Wicks, Leadership Prep Bedford Stuyvesant Teacher, former Pre-K educator

Synthesis of Uncommon Conversations

Uncommon leaders were generally enthusiastic about the prospect of Pre-K at their schools. They universally recognized the potential of Pre-K as a way to accelerate their students’ progress and showed enthusiasm for learning more.

Importantly, many Uncommon leaders had accurate intuition about the need for programmatic changes for Pre-K classrooms. Indeed, school leaders cited Uncommon’s long day, rigid behavior expectations, and lack of recess, play, or nap as examples of programmatic choices that may need to change. Importantly, Uncommon leaders universally expressed a willingness to develop different looking classroom for younger learners, specifically including more play and movement into the student day as long as the program was still “rigorous.”

However, with the exception of a few teachers who have taught in Pre-K, there is a general lack of internal expertise on early childhood pedagogy and what rigor in the Pre-K context looks like. As RPES Principal Jamie Brillante stated, “I know behavioral expectations would have to look different. How different? I don’t

The skills students learn in Pre-Kindergarten such as having rich conversations over meals or co-solving problems with their peers are not practiced in Uncommon’s highly-structured Kindergarten program.

know.”²⁵ This lack of early childhood background led to a wide range of expectations of student outcomes and behavior expectations among Uncommon stakeholders. For example, some Uncommon leaders expressed interest in an evolving Pre-K by which the classroom would look and feel like a Kindergarten classroom by the end of the school year. However, our research and school visits suggest this this would not be advisable. This does, however, highlight a potential challenge for Uncommon: some rigorous Pre-K goals – such as developing a child’s oral language vocabulary and conversation capacity – do not necessarily translate well to Uncommon’s current elementary school model. Indeed, the skills students learn in Pre-K, such as having rich conversations over meals or co-solving problems with their peers, are not emphasized in Uncommon’s highly-structured Kindergarten program. Understanding some of this tension, Troy Prep Principal Katie Yezzi noted that Pre-K’s introduction could impel Uncommon to think about incorporating more play into Kindergarten.

However, Uncommon’s enthusiasm about Pre-K and mission-driven culture suggest that when armed with more information regarding early childhood research and best practices, teachers and school leaders could adapt their expectations and programmatic model to produce high-quality Pre-K.

A full discussion of conversations with Uncommon Schools teachers and school leaders can be found in Appendix 3.

Literature Review: What We Know about Pre-Kindergarten

According to one estimate, about half of the test score gap between black and white high school students exists by the time children begin Kindergarten.⁶ As such, the importance of Pre-K, especially for low-income children, has a strong research base. The two seminal studies in the field are HighScope/Perry Preschool and Abecedarian. They both correlate a students' high-quality preschool experience with greater academic gains, increased rates of high school graduation and employment as well as fewer special education referrals, incarcerations, and teenage pregnancies.⁷ The data in *Figure 1* demonstrate the strong relationship between a student having attended Highscope Perry Preschool and better long-term outcomes.⁸

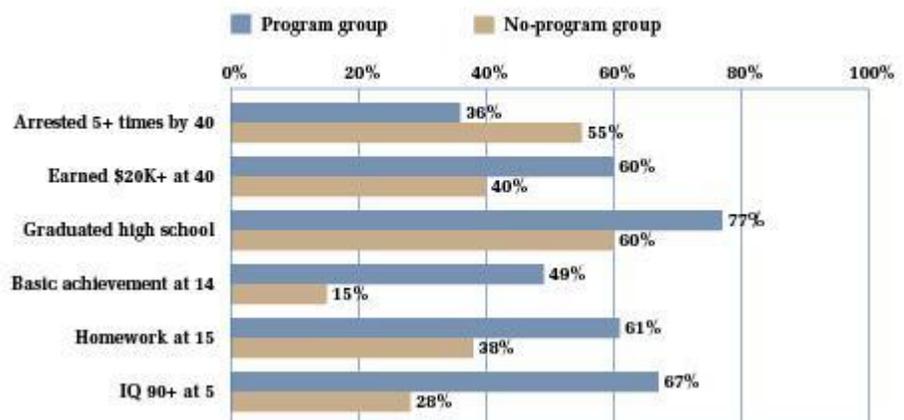
There is also significant data to suggest that students who attend Pre-K have greater Kindergarten readiness skills. A 2013 study found that Pre-K improves low-income children's literacy and math skills as well as executive functioning capacity.⁹

Furthermore, a rigorous study of five state Pre-K programs found a statistically significant positive increase in student skills in vocabulary, math, and print awareness for one of the states. The other four states generally had positive correlations but fewer were statistically significant.¹⁰ On the other hand, Head Start, the nationwide public Pre-K program, has a well-documented "fade-out" effect: by third grade students who attend Head Start do not experience different academic outcomes from their peers who did not.¹¹ Researchers hypothesize this may be because they attend poor performing schools after Pre-K or that subsequent teachers focus on the lower-performing students in order to catch them up or that the Pre-K quality is low.

Research shows that the achievement gap begins well before Kindergarten.

especially for low-income children, has a strong research base. The two seminal studies in the field are HighScope/Perry Preschool and Abecedarian. They both correlate a students' high-quality preschool experience with greater academic gains, increased rates of high school graduation and employment as well as fewer special

Figure 1
Major Findings: High/Scope Perry Preschool Study at 40



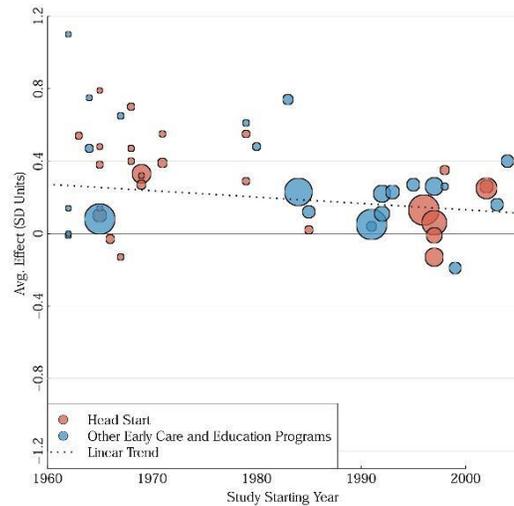
As researcher Greg Duncan notes, “Highscope and Abecedarian programs are called models for a reason. They were thoughtfully designed and carefully monitored.”¹² Many of today’s Pre-K offerings do not have these same features. Poorly implemented Pre-K adds little to no value for students’ school readiness.¹³ However, in a recent review of a large number of Pre-K studies, Greg Duncan found only a small effect in many Pre-K programs. (See *Figure 2*).¹⁴ Full-day, year-round and two-year Pre-K programs have shown better results than Pre-K programs offering less intensive services.¹⁵ Indeed, simply attending Pre-K does not strongly correlate with stronger academic outcomes; Pre-K *quality* is the key factor to student success.

What Is The Work of a Pre-Kindergarten Student?

In the best Pre-Kindergartens, students are learning literacy, math, social studies, science, the arts as well as social-emotional skills and physical development. Carla Horwitz, Director of Calvin Hill Day Care Center at Yale and a professor in the Child Study Center, describes her young students as learning physics as they play with blocks and ramps.¹⁶ Intellectual inquiry is the emphasis of early childhood, even though it is done through means that look very different from the K-12 classroom.

New York State developed a set of Common Core aligned standards for Pre-K. They range from fine motor skills such as, “uses buttons, zippers, snaps, and hook and loop tape successfully” to social-emotional skills such as, “regulates his/her responses to needs, feelings and events,” to academic such as, “recognize and match words that rhyme.”¹⁷

However, there is disagreement among experts about where the emphasis should be. Supporters of the “whole child” approach, which is used in Head Start, focus on children’s social-emotional skills, and physical well-being, as well as cognitive skills. On the other hand, more “academic” Pre-Kindergartens places greater focus on literacy and math skills. Defending the “whole child” approach, early childhood researchers, Sandra Bishop-Joseph and Edward Zigler assert, “To succeed in reading and at school, a child must receive appropriate education, but he or she must also be physically and mentally healthy, have reasonable social skills, and have curiosity, confidence and motivation to succeed.”¹⁸ Meanwhile, researcher Greg Duncan surveyed six longitudinal data sets to understand what early childhood skills were associated with later reading



and math success. Social skills were not one of the components of future academic success – rather unsurprisingly early reading and math skills correlated with later reading and math skills.¹⁹ This has led notable researchers Kathy Hirsh-Pasek and Roberta Michnick Golinkoff to assert the following:

*The Capulets and Montagues of early childhood have long battled over their vision for a perfect preschool education. Should young children be immersed in a core curriculum replete with numbers and letters or in a playful context that stimulates creative discover? Cast as a feud, many have come to believe that the two approaches are incompatible.*²⁰

The differences in outcomes between the two approaches are hard to distinguish because of a lack of rigorous longitudinal data. However, the literature currently divides quality indicators for Pre-K in the following categories:

- *Programmatic*: adult-child interaction, classroom environment, intellectual and academic rigor, curriculum choice and implementation
- *Student Outcomes*: academic outcomes on Kindergarten Entry Assessments, formal assessments, and work sampling
- *Structural*: per-pupil spending, teacher accreditation, and teacher-student ratio

Because of the New York State RFP requirements and Uncommon’s philosophy, Uncommon’s Pre-Kindergarten program would already have the pieces of “structural quality” such as teachers with bachelor degrees in each classroom and classrooms with fewer than 20 students. Thus, we will focus on “programmatic” quality and “student outcomes.”

Programmatic Assessments

For many years early childhood has been focused on assessments that capture teacher-student interactions and the quality of the environment. There are a number of respected evaluation tools. Two of the most commonly used are the Early Childhood Environment Rating Scale (ECERS) and the Classroom Assessment Scoring System (CLASS).

ECERS is an inventory of 43 items categorized into seven subscales: Space and Furnishings, Personal Care Routines, Language and Reasoning, Activities, Interactions, Program Structure, Parents and Staff. Classrooms are scored on each of the 43 items on a 1-5 scale, with descriptions of what would merit a one, three, and five in each domain. While stronger ECERS scores have been correlated with stronger student outcomes,²¹ several experts agree that it is generally seen as less rigorous than CLASS.²²

CLASS focuses on the “depth, breadth, and frequency” of teacher-student interactions. Experts consider CLASS to be one of the most rigorous early childhood teacher assessments. It uses certified observers to rate the quality of interactions between teachers and students on a number of domains that range from emotional support and instructional support.²³ The focus is on the relationship between student and teacher. Even the most experienced early childhood educators consider it is a challenging assessment.²⁴

Student Outcomes

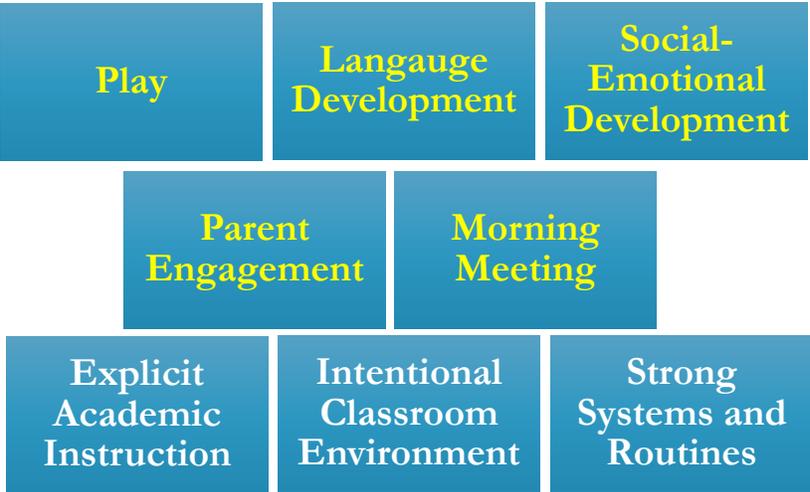
Measuring Pre-K quality based on student outcomes is challenging and controversial. There are major limitations when considering academic benchmarks for four-year-olds. Compelling research shows that many four-year-olds are not developmentally ready to be test-takers. Thus, assessments “may overestimate or underestimate [a child’s] true level of development and learning.”²⁵ The National Association of Educators of Young Children, states, “The younger children are, the harder it is to create generalized expectations for their development and learning, because young children’s development varies greatly.”²⁶ Indeed, the range of appropriate development for young children is much larger than their older peers.

Four-year-olds are generally not developmentally ready to be consistent test-takers.

However, Edward Zigler, a noted Pre-K scholar, writes, “My model preschool program must include a solid accountability system based on scientifically-demonstrated, reliable, and valid assessments.”²⁷ While there is general agreement that some assessment must take place, finding appropriate assessments is a challenge. Child observation records are one way of answering this challenge. Many early childhood experts use constant work sampling and observation of students during their play, play planning, morning meeting, and writing to assess growth.

Practices Seen in School Visits and Literature

Across all of our visits and the Pre-K literature are eight components of high-quality Pre-K. We have highlighted in yellow the ones that Uncommon should prioritize as they launch Pre-K:



The Pillars of High-Quality Pre-Kindergarten

***Play:** The work of a Pre-K student is play. The play should be meaningful and connected to students' lives. It should promote language development and an understanding of the world around them. The play is student-driven and joyful.

***Language Development:** Pre-K classrooms place a premium on oral language development. By having conversations about topics that are meaningful to students, labeling new objects and emotions, and using higher tiered vocabulary, teachers mindfully promote language development throughout the day. Pre-K classrooms are full of language and rarely silent.

***Parent Engagement:** Parent engagement in Pre-K classrooms is central as young children transition from home to school. High quality Pre-K programs invite parents into the classroom daily and teachers frequently communicate with parents in a variety of ways. Home visits are common.

***Social-Emotional development:** Pre-K is a time when students are learning what it means to be part of a school community and in a group of their peers. As such, social-emotional skills such as attention, self-care, persistence, and problem solving are important pieces of Pre-K. Teachers explicitly plan for supporting students in these activities.

***Morning Meeting:** A rich morning meeting begins the day in many Pre-K classrooms. During this time, teachers and students welcome each other, set the plan for the day, check-in about emotions, and complete mini-lessons in ELA or math.

Explicit Academic Instruction: Explicit academic instruction is part of Pre-K. Pre-K benchmarks include but go beyond letter and number identification and production.

Intentional Classroom Environment: The environment should extend, support, and inspire students' play. Students should have access to varied and changing materials that are connected to their environment and community.

Strong Systems and Routines: Young children benefit from predictable systems and routines for example for classroom entry, dismissal, and bathroom visits.

List of Schools Visited:

In order to understand how different programs implement Pre-K, we visited the following schools:

Charter:

- Pre-Pave Academy (New York City)
- Pre-Prep/Public Prep (New York City)
- DC Prep (Washington, D.C.)
- KIPP Grow (Washington, D.C.)

Public:

- First Step (New York City)
- Powell Elementary (Washington, D.C.)

Private:

- The Coop School (New York City)
- Fieldston School (New York City)
- Bank Street School for Children (New York City)

University-affiliated:

- Tufts/Eliot Pearson Children's School (Boston)
- Yale/Calvin Hill Day Care Center (New Haven)
- UDC Lab School (Washington, D.C.)

Play

What the research says:

The power of play is well-documented. Researchers agree that play is a powerful teacher of children. Play does not diminish the learning in a Pre-K classroom. Rather, play *is* the learning. Or, as researchers Hirsh-Pasek and Michnick Golinkoff put it, “the debate must no longer be about learning versus play. Rather, curricula should stress learning *via* play.”²⁸

A 2006 study found that preschool students who engaged in more free play and less whole group time had better cognitive outcomes at age seven.²⁹

Indeed, it is through play that young children learn language, vocabulary, and critical thinking. Furthermore, numerous studies link play to enhanced cognitive and executive functioning.³⁰

Play is not ancillary to a Pre-Kindergarten student’s learning. Play *is* the learning of a Pre-Kindergarten student.

However, not all play looks the same. The work of the Pre-K teacher is to structure the class so that play activities allow students to experience deep, intellectual, and academic learning. This can take place in two ways: free play and guided play. During free play, student choose their activities and the activities have no specific goals. Many times there are elements of “make-believe” in this play.³¹ During guided play, teachers populate the classroom with specific manipulatives such as props and puppets to promote learning goals and are more involved in the play by supplementing it with open-ended questions. Importantly, in both instances the “learning is child directed and not adult controlled.”³²

Bank Street School for Children, in partnership with the Bank Street Graduate School of Education, has a sophisticated, research-based philosophy of play.³³ They believe that:

Through play, children learn about themselves, each other, and their environment. Children at play are meaningfully involved in aspects of social, emotional, and cognitive development... Though play is an intuitive and primary activity for most typically developing children, it is, at the same time, a complex and challenging activity... Conflicts that arise during play- centered on issues that matter so deeply to children- are essential experiences that provide space for teaching and learning. Grappling with these conflicts and working toward resolution provide authentic opportunities for children, supported by their teachers, to grow socially and emotionally.”³⁴

Play in Practice:

There was evidence of play at every Pre-K program we visited. Play usually took place during centers with smaller groups of students. Additionally, every program we visited had recess, which was almost always outside (except for extreme weather circumstances). For some of the New York City schools that faced space constraints, playgrounds were on the roof or at a nearby park.

Centers:

- At *UDC*, play centers include: writing, art, blocks, exploration, library, cooking and computers. There is a center chart (with photos of each station) for students to use in choosing their center. Children can move between centers by moving their name/photo to another pocket on the classroom's center chart.
- At *Powell*, the centers are dynamic and change with student experiences. Having gone on a field trip to a local restaurant (Cactus Cantina), students were engaged in creating a tortilla maker like the one they saw on their field trip. This required deep conversations between students and teacher as they recall details of the field trip. Students stay at their center for the duration of center time and keep a clothespin that shows which center they are in.
- At *Pre-Pave*, centers included writing, discovery, art studio, puzzles and games, and dramatic play. The dramatic play center is community-related and included a make-believe subway station.

Teacher-to-Student Ratio during Play:

- At *UDC*, because of the high teacher to student ratio, there is a teacher at each center (with 3-4 students).
- At other schools, such as *Powell* and *KIPP Grow*, teachers float between play centers or focus on leading one center.

Dramatic Play:

- At *Bank Street*, dramatic play is ever-changing because students work with blocks to build their play settings (it was a boat the day we were there) instead of teacher-created settings. As such, the dramatic play is dynamic and takes on many different themes, often based on what the students are interested in or what they are learning.

Recess:

- At *The Coop School*, students go outside (on a rooftop playground) everyday with teachers. Teachers watch what happens outside and integrate it into the classroom.
- At *Bank Street*, students play outside with simple building blocks and tires instead of traditional playground equipment. During recess students also engage in dramatic play.
- At *Pre-Prep*, students walk to a nearby park.

Language Development

What the research says:

Research suggests that the early literacy gap begins with an oral language gap. In 1995, researchers Betty Hart and Todd Risley found that by age three, low-income children have heard approximately 30 million fewer words than their upper-income peers.³⁵ Indeed, vocabulary at age three strongly predicts later academic success at age nine on both future reading comprehension and vocabulary assessments.³⁶

Advocates have started to call this “language nutrition” — likening the importance of engaging with rich language with the importance of healthy eating. In short, strong early language development creates strong reading development later on.

The early literacy gap begins with an oral language gap.

Because of this, Pre-K programs put a premium on oral language development. But it’s not as simple as turning on the radio and T.V. to increase the number of words a child hears — these mediums do not have the same positive effects as conversation. It’s the quality of the interaction that matters.³⁷ Jack Shonkoff and the Harvard Center on the Developing Child describes high-quality interactions as “serve and return”:

“Much like a lively game of tennis, volleyball, or Ping-Pong, this back-and-forth is both fun and capacity-building. When caregivers are sensitive and responsive to a young child’s signals and needs, they provide an environment rich in serve and return experiences.”³⁸

To make these exchanges even more meaningful, early childhood researcher Kathy Hirsh-Pasek developed six principles of language that include the ideas that: children learn the language they hear most frequently as well as the language that interests them most; children learn best in contexts that are interactive and meaningful to them; and diverse words and language structures are important and go hand in hand with grammar development³⁹

In order to promote meaningful and prolonged conversation, “How to Talk So Kids Will Listen” focuses on echoing and giving names to children’s feelings — repeating what a child says to allow them to continue with their thoughts. Kathy Hirsh-Pasek is more prescriptive, considering responsive conversations as ones that:

- Include talking with, not talking at a child.
- Expand on what a child does. For example, “Wow, what a tasty cake you’ve baked in the kitchen. What shall we cook next?”

- Notice what the child finds interesting. For example, “You seem to like playing with that *red and black ladybug*.”
- Use a label to describe what children are naturally interested in. For example, “That star you are looking at is very *bright*.”
- Ask questions of children rather making demands of them. For example, “Where are you driving your ambulance?”⁴⁰

Because of the overwhelming evidence about the importance of oral language, high-quality Pre-K places a premium on the quality of teacher-student interactions.

Language Development in Practice:

On our visits, we witnessed skilled teachers push language and vocabulary development into their interactions with children, especially during play.

Authentic Vocabulary Development:

- At *KIPP Grow* during Morning Meeting, students discussed what a ‘bagger’ at the grocery store does. This connected back to a field trip they had recently taken to the grocery store. The teacher brought out a picture of a bagger for further discussion. They talked about how this role is different from other jobs at the store. The students then go to play centers, one of which is a make-believe grocery store check-out center complete with many of the materials they discussed.
- At *Powell*, teachers infuse higher-tier language and vocabulary development into conversations with children. For example, while students put on coats, a teacher said, “You look bundled, Marco.”
- *At Yale, we saw the following interaction:*
 Teacher: “The other day when we were outside, we saw a very special thing. What was that?”
 Child 1: “A squirrel eating a pumpkin!”
 Child 2: “That was yesterday!”
 Teacher: “That was on *Friday*, which is in the *past*, like *yesterday*. But *yesterday* was *Monday*.”

Student-Directed Conversations and Teacher Probing:

- At *Powell*, teachers probe for greater specificity in conversations with children. For example, while students were deciding which center to go to, the teacher said, “I know you want to go to McDonald’s (a center), but what do you want to do there?”
- At *Powell*, teachers give students opportunities to elaborate. For example, the teacher says, “Tell me more about that” when a student answered a question with a one-word answer.

Encouraging Constant Conversations:

- At *UDC*, during meals and snacks, students practice their conversations skills. As *UDC* founder, Maurice Sykes, describes the meal routine, “This is the beginning of public discourse. It’s what intelligent people do — sit down and have a conversation.”⁴¹ On Friday students decide in advance what lunch conversation topics they will discuss each day for the following week. For example, they may choose to talk about sports on Monday and animals on Tuesday.

Social-Emotional Development and Behavior Management

What the research says:

Social-emotional development is a cornerstone of Pre-K. Aside from early math and reading skills, researcher Jeanne Brooks-Gunn found that early attention skills are also correlated with later academic success.⁴² Indeed, the development of attention skills as well as self-regulation and persistence are vital to early childhood learning. Students should develop an understanding of themselves and their community – e.g.: what it means to be part of a school environment which includes challenging moments, distractions, and many peers with whom to interact.

Being able to pay attention to a task allows “children to focus on something in a way that maximizes the information they get out of it.”⁴³ To be successful, a student must learn not to break down in tears when a pencil doesn’t work but have the self-control to choose another pencil so that they can continue with their task.

Early attention skills, described as persistence and self-regulation, are positively correlated with later academic success.

Importantly, we have evidence that this can be taught in the early childhood classroom. Notable researcher Michael Posner found that four and six year old children who received training that focused on conflict resolution, self-regulation and focus performed better on measures of intelligence.⁴⁴ It is for this reason that early childhood teachers put special importance on developing these skills.

Social-Emotional Development in Practice:

Many of the Pre-K classrooms we visited placed a strong emphasis on social-emotional development. They believed that without a strong social-emotional foundation, students would not be ready to learn. They view Pre-K as a time for students to learn about themselves and the world around them. It’s a time for them to learn how to share, interact with others and express themselves.

Learning about Feelings:

- At *Pave* and *First Step NYC* there was a “feelings” poster on the wall, with labeled photos of different feelings.
- At *Bank Street*, each student creates feeling boards with photos of them showing different emotions. Students use these boards to track their feelings throughout the day.

Self-Control and Learning to Manage Emotions:

- At *KIPP Grow*, as part of the Tools of the Mind curriculum, children practice self-control by engaging in a mimicking and freeze dancing exercise, where students had to follow the motions of a character on a screen and then stop when he did.
- At *KIPP Grow* and *Pave*, teachers explicitly narrate how to say, “Oh well, maybe next time” when a child is not chosen for an activity, and “not getting upset because it’s a little deal.”
- At *Bank Street*, teachers identify social skills specific students are working on. E.g.: “Today X, something you’re working on is being okay with not getting what you want right away.”
- At *Pave*, teachers calm students down with creative techniques: “Smell the flower (breathe in), blow out the candle (breathe out).” There was also a “calm down corner” in the classroom that listed steps for how to calm down.

Managing Conflict:

- At *Bank Street*, when there is a conflict, teachers sit down all students involved and have an extended conversation starting with “blowing out three birthday candles” (taking three deep breathes).

Behavior Management:

- At *KIPP Grow*, students sit still on the carpet (they can sometimes call out but are also instructed to raise their hand).
- At *KIPP Grow* and *The Coop School*, students who are misbehaving after several corrections are asked to take a “break.” At *KIPP*, while taking a break, a child flips over a one-minute hourglass or three-minute hourglass.
- At *KIPP Grow*, some teachers used “Super Sticks” as a classroom management tool. Using this system, the teacher states the behavior expectations at the beginning of each activity, and at the end of the lesson gives a stick to each student who met expectations. If students



meet the daily goal (for number of sticks), they can get a high-five or go to the “class store.” This motivates students and is personal and discrete.

- *DC Prep* recently got rid of its color card behavior management system because it was not successful. They now use “class shines” as a way to celebrate when the majority of the class is meeting behavioral expectations.
- At *Pave and The Coop School*, teachers point out and reward positive behavior. At *Pave*, teachers give out paper hearts to students called “Love its.” At *The Coop School*, the teacher says things like “I want to give a compliment to X for waiting patiently.”

“Rules”/Behavior Expectations:

- At *Bank Street*, the list of classroom rules is student-generated (e.g.: “don’t crash your friend’s structure”).
- At *Fieldston*, during morning meeting, to get students to face forward, the teacher says “point your nose at my nose.” When they line up to go in the hallway she says “point your nose at the person in front of you.” When students are talking during morning meeting she says, “if everybody talks at the same time, how can we hear each other?” When they are talking while a child is trying to count she says, “It is hard for him to think while children are talking.”
- At *The Coop School*, before morning meeting, the teacher tells students to “send their voices on vacation.” In one classroom, before morning meeting, the teacher reviewed expectations for “Whole Body Listening” (watching eyes, listening ears, voices off, still hands, legs crisscross apple sauce or French fry if you’re wearing boots). When there’s talking while another student is trying to count, the teacher says, “How can we be supportive of (student’s name)? What can we do with our voices?”

Self-Care and Persistence:

- At *Powell*, the students are responsible for self- and classroom-care – students learn to brush their teeth, put on their coats, clean up, and open their own containers at meals.

Parent Engagement

What the research says:

Parent involvement is a critical part of virtually every successful Pre-K program. Study after study has shown that greater parent involvement in a child's early years is positively correlated with future academic outcomes.⁴⁵ Specifically focusing on low-income students, the Chicago Child-Parent Centers found that higher parent involvement in early childhood classrooms increases student achievement outcomes starting in Kindergarten through middle adolescence.⁴⁶ A number of studies have found that students with parents who frequently read to them and talk with them about the book experience a significantly improved reading and future language outcomes.⁴⁷ As such, early childhood educators pay special attention to incorporating parents into the classroom.

“If you want children to learn and grow, not just in the classroom but for life, the parents have to be there.”

– First Steps NYC Administrator
(In personal interview)

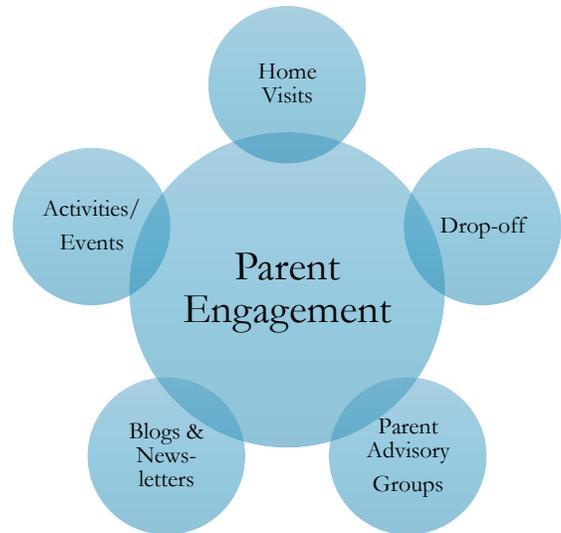
However, engaging parents can be hard. Home visits — a practice of teachers visiting the student's home before the school year and sometimes again during the year — was an essential part of Perry Preschool and is also a part of many early childhood practices today. Home visits help develop strong relationships with children and parents, and make school a more welcoming environment to families. Championed by the Flamboyan Foundation, the research base of effectively involving parents has grown. They found that home visits led to significantly fewer student behavior problems.⁴⁸

Parent Engagement in Practice:

Every school we visited focused on parent engagement, which they considered especially important for Pre-K. Pre-K parents should be involved in their child's education and aware of what is happening in the classroom. All programs invited parents to drop their child off in the classroom. This allowed them to see and talk with the teacher each morning. According to the Director of *The Coop School*, “developing a warm relationship with parents is as important as developing a warm relationship with students.”⁴⁹

Home Visits/Learning about Students and Families:

- At *Bank Street*, families fill out a family history form at the beginning of each year. The form includes questions such as: What was your child’s first word? Have they experienced death? Are there any hospitalizations in the family?
- At *Pave* and *Powell*, teachers go on home visits before school starts to learn about the parents and child. In particular, at *Powell*, teachers ask parents questions such as: “What is your child afraid of?” “What helps calm them down when they are upset?” and “What are your hopes and dreams for your child?”
- At *Pave*, parents also fill out a survey at the beginning of the year. On the survey, parents report the types of activities their child enjoys, what their child does when he or she is scared or nervous, the best way to comfort their child, something their child is good at, something they’d like to see their child improve on, etc.



Drop-off/Inviting Parents to the Classroom:

- At *First Step NYC*, *Pre-Prep*, *The Coop School*, *Yale*, and *Fieldston*, parents are encouraged to stay in the classroom after they drop their students off in the morning. During drop-off, teachers talk with parents. For example, at *The Coop School* we saw teachers ask questions like “how was your vacation?” At *Yale*, they even recommend against carpooling to ensure that teachers can see each family every day.
- At *Bank Street*, there are weekly “Family Shares” during morning meeting. All families are invited to present something about their family – a favorite place to visit, a family tradition, etc. During this time, students practice listening, asking questions, and learning about others. Each family gets the chance to share once during the school year.

Parent Committees:

- At *First Step NYC*, a Parent Policy Committee gives parents the opportunity to share their ideas on school policies.
- At *KIPP Grow*, there are monthly parent organization meetings.

Communication with Parents:

- At *First Step NYC*, there are family and community bulletin boards outside each classroom.
- At *Yale*, there are “Parent pockets”: hanging pocket folders stuffed with children’s work and announcements for parents to collect when they pick up their child at the end of the day.
- At *UDC*, daily journals and a Friday newsletter (describing what students did that day/week) are posted and emailed to parents. This also facilitates student-parent conversations.
- At *Powell*, teachers write and put pictures in each child’s journal, which is sent home weekly.
- At *The Coop School*, teachers maintain a blog that gets updated weekly. They also send parents daily newsletters via email. This also opens up communication between parents and children because children might not be able to remember or express what they did in school that day.
- At *Pave*, parents receive a report card every trimester that anecdotally shows the student’s progression across social-emotional, behavioral, and academic domains.

Activities/Events for Parents:

- *First Step NYC* holds yoga classes for parents and students. There are also parent-run workshops based on parent interests (e.g.: knitting, new father workshop). Additionally, they hold nutrition and asthma workshops.
- The school psychologist at *KIPP Grow* holds biweekly parenting sessions. There are also parent volunteer days.

Resources for Parents:

- *KIPP Grow* and *UDC* have family lending libraries. *UDC* also has a 100 books per year challenge.
- At *Fieldston*, the school also offers to host play-dates for students at their playground.

Support Staff:

- At *First Step NYC*, there is a large family support team that includes social workers.

Morning Meeting

What the research says:

Starting the day as a whole group is part of virtually every early childhood classroom, but there is not a lot of strong empirical research that delineates between effective and ineffective uses of whole group time in the early childhood classroom. As such, morning meetings make use of best practices in other domains such as language development and social-emotional skill building. There is general agreement that children's attention spans increase with age.⁵⁰ Therefore, morning meetings are typically short.

Morning Meeting in Practice:

Most of the schools we visited started morning meetings after arrival and breakfast. During this time teachers and students sit on the rug to discuss the day's schedule and say "good morning" to each other. The morning meetings we watched were between ten and 30 minutes long. Here is a sample of what they looked like.

At the Coop School:

- Morning Meeting starts with a nursery rhyme (e.g.: Hickory, Dickory, Doo) and stretch.
- One student's job is to read the day's schedule. One student's job is to count how many students are present. The teacher then asks, "if there are 18 friends here today, how many friends are not here?" Students make predictions and then check by counting the number of names on the "at home" side of the attendance chart.
- They review the date and calendar. The teacher points to a sentence that says, "Today is Thursday." She puts her finger on the word Thursday and says "raise your hand if you know what this says." When a student answers "Thursday," she asks "How do you know?" and the student replies "because of the "Th""
- They discuss the number of days they have been in school. The teacher says "Yesterday we were in school for this many days (pointing to the number 76)." Students then read "76." The teacher then asks, "What is the number today?" As a class the students count from 71 to 77. She then asks a student to point to a "7" on the calendar.
- The teacher says, "Yesterday was cold and sunny. Is today cold and sunny?" and asks a student to go to the window to check.

- A “Morning Message” is posted on the board. There are dragonflies drawn in different places, and before reading the message, the teacher asks students to count how many dragonflies there are. Then, the teacher calls on a student to read the message with her, while the rest of the class copies one word at a time.
- In one class, during morning meeting they brainstorm six places where you can find water. Students raise their hands to share and the teacher writes down their ideas.

At Fieldston:

- During morning meeting, when a student mentions being stuck in traffic because of the snow, the teacher says “let’s count how many other students were stuck in traffic today.”
- During morning meeting, the teacher asks students to look around and see who is absent. When they realize that one student is absent, she says, “If we have 19 students when no one is absent, how many students do we have today when one is absent?” She gives everyone a chance to think and then all students give their guesses. They then check by having a student count. He counts in English and Spanish and then they count as a group.
- The teacher fills in the day on the calendar and students say the whole date.
- They also fill out a “Weather Chart.” The teacher says, “What is the weather today, X?” and the student responds “cold and snowy.” The teacher then adds this to the chart.
- Lastly, students and teachers practice a clapping pattern together (e.g.: lap, clap, clap).

At UDC:

- Students read a morning message and clap to a pattern.
- Then, they talk about the way a leaf falls and make a tally chart. They count tallies and discuss the concept of “greatest” and “least.”
- During morning meeting, students sit quietly. During “share time,” the student sharing asks, “Any questions or comments?” and calls on other students. He then thanks them for their question.

At KIPP Grow:

- During the meeting, the class adds to the “weather graph” which shows the number of rainy, cloudy, snowy, or sunny days.

Explicit Academic Instruction

What the research says:

While many components of Pre-K can and should be taught through play, there are components of the New York State Pre-K Common Core Standards that cannot be taught solely through play. For example, one of the Pre-K language standards is “Print some upper- and lower-case letters.” For math, a standard is “Represent a number of objects with a written numeral 0 – 5.”⁵¹ As such, there is good reason to sometimes be explicit with skill development. Indeed, in 2008 the National Early Literacy Panel found that alphabet knowledge and phonological awareness in Pre-K are highly correlated with decoding and later reading comprehension.⁵²

However, as early childhood researcher Kathy Hirsh-Pasek puts it, “children learn richer vocabulary in playful learning where the information is meaningful than they do in direct instruction methods devoid of meaningful engagement.”⁵³ As such, explicit academic instruction should complement and not supplant play in the Pre-K classroom. To the extent that meaning can be infused into the explicit instruction – connecting letter sounds to things a child is already interested in – it should be done.

Explicit Academic Instruction in Practice:

There are three main methods for engaging in explicit academic instruction: whole group, small group, and one-on-one. At many of the schools we visited, explicit academic instruction took place in either small or large groups, or during transitions or arrival. For math, explicit instruction focused on counting and numbers. For literacy, explicit instruction often focuses on identifying letters and sounds.

Literacy (Reading):

- At *Pave*, during 15-minute “small group time” children are divided into three groups of six students each, and they practice writing and identifying letters. To support during this time, the Special Education teacher pushes in.
- At *DC Prep* during center time, teachers pull students individually for targeted practice in specific skills such as letter/sound identification. Even then, the conversation is playful.

- At *KIPP Grow* during small groups, one teacher worked with seven students on literacy for 12 to 15 minutes with a Read Aloud. Another group used a Waterford Literacy program on computers.
- At *Pave* “Word play” is a 15-minute whole group time during which students and teachers read a poem/song that focuses on a particular letter. For example, students were joyously working on rhyming and the letter “w” in singing “Willaby, Wallaby Woo”. Because each student had the chance to add a rhyming word to the song, teachers were easily able to check for student understanding.
- At *DC Prep* Read Aloud is done in two small groups. The small groups read the same book but work on different skills based on individual student needs.
- At *DC Prep* students danced to the alphabet with hand and body signals for each letter.
- At *First Step NYC*, there is a “Letter of the Week” and a song to go with it (e.g.: “R is for rain, it falls from the sky. R is for..”). Students sing this as they transition.
- At *Bank Street*, during “story acting,” several students acted out a student-created story. During this time students heard the story three times, identified characters, and listened for and acted out plot lines.

Literacy (Writing):

- At *Yale* there is explicit writing practice at the “writing center.” In groups of four, children practiced writing words. They told the teacher what word they want to write, and she wrote it on a card for them to copy. For example, they asked to write the words “friend,” “family,” and “once upon a time.” They all held the markers correctly. Then, the teacher got their “books” out. These are books they have been writing about topics of their choice. One girl wrote her book about *Frozen*. She illustrated it and the teacher wrote the words she dictated.
- During arrival at *The Coop School*, some students trace uppercase and lowercase letters with a whiteboard marker on a plastic sheet. Another student draws a picture. When she is done, the teacher tells her to write her name on it. When she says she doesn’t know how, the teacher draws a “W” (the first letter of her name) and has the student practice drawing a “W.”

- At *KIPP Grow* during large group literacy, the teacher models how to write a letter. Students then use whiteboards to practice the letter/chant (e.g.: “down, bump, bump” for writing “m”)
- Before centers at *KIPP Grow*, a teacher models how to write a “play plan” that says, “I am going to....” with an accompanying picture. Before going to their centers, each student writes their own “play plan.”

Math:

- At *Pre-Prep* teachers and students count the number of days they have been in school starting from one.
- During small groups at *KIPP Grow*, one teacher works on math with a group of seven students for 12 to 15 minutes. Each student gets a card. One-by-one they call out: “I have a brown hexagon, who has a yellow square?” or “I have a six, who has a three?”

Infusing Academics into Transitions:

- At *The Coop School*:
 - During arrival there is a question posted for students to answer with the help of their parent. In one classroom the question was “What word begins with the same sound as our Woodshop teacher’s name? Flower, Snow, or Rhino.” In the other classroom, there is a photo of flowers and the question reads, “How many flowers are there? 7 or 11?” The answers to these questions are reviewed during morning meeting.
 - To start cleanup, students counted down from ten.
 - During cleanup, students sorted markers by color.
 - As the teacher called students to walk from the rug to the bathroom, she spelled their first name. When they heard their first name being spelled, they knew to get up.
 - As students transition, they completed a clapping pattern which includes saying their first and last name.
 - As students walk toward the bathroom, a teacher measured their height against a wall and asks “Do you think X is taller or shorter than Y?”

Classroom Environment

What the research says:

In all Pre-K classrooms, the classroom environment is an important component of the learning. In fact, the Reggio philosophy considers the environment to be “the third teacher.” A large-scale study found that young students in classrooms with deliberate classroom set-ups had stronger science and math outcomes, as well as higher oral language use, than those in the control group where the classroom environment was randomly put together.⁵⁴ However, other than ECERS guidelines, the specifics of differentiating between higher quality and lower quality classroom environments and its impact on student learning are sparse.

Classroom Environment in Practice:

In all of the classrooms we visited, the environment was set up to support student learning.

Student Artwork/ Work:

- Almost every classroom we visited had labeled student artwork hanging on the walls.
- At *Fieldston*, student artwork is labeled with descriptions dictated by students and written down by the teacher. For example, next to a student’s painting a teacher wrote, “a cheetah looking at the water because he wants to go in but couldn’t.”
- At *KIPP Grow* bulletin boards outside classrooms show each child’s photo with their work.

Walls/ Posters:

- At *UDC*, student-made posters show colors, numbers, and letters. Rules (“be respectful to ourselves, be respectful to our friends, and be respectful to our environment”) are also posted on the wall. The blocks center has posters of cityscapes to inspire students.
- At *KIPP Grow* a classroom job chart, the calendar, and the daily schedule are posted.

Organization:

- At *UDC*, materials are sorted by color.
- At *KIPP Grow*, furniture is labeled “Door,” “Closet,” etc.

Nature:

- At *UDC*, there are a lot of objects from nature: bark, rocks, pinecones, leaves, large plants, and a turtle and fish tank. There are also large windows and labeled pictures of animals.

Systems and Routines

What the research says:

As Uncommon already knows, systems and routines are important for maximizing learning time. For young children, they are especially important for establishing a predictable and safe learning environment.

Systems and Routines in Practice:

The arrival routine often consisted of students moving their name on an attendance chart and putting their belongings away. Almost every classroom we visited had a bathroom in the classroom that students knew how to independently use. Many of the classrooms also had labeled spots on the carpet or floor that showed students where to sit or where to stand when lining up.

Labels/Rules:

- At *KIPP Grow*, *Pave*, and *The Coop School* numbers/names on the floor show students where to line up and sit.
- At *Pave*, posters on the wall showed the steps for: “How to Greet a Friend,” “How to Walk in Line,” and “Morning Routine Rules.”

Transitions:

- At *Pre-Prep*, when the teacher rings a gong, students put their hands up.
- At *KIPP Grow*, during large group literacy, students know to stop working, erase their board, and walk to the carpet when they hear music.
- At *Pave*, in the upper school, before students transition they have a 1-2-3 count. (1— sit in SHARP.) For Pre-K it is 1 — show me your smile.

Bathroom:

- At *KIPP Grow*, when a student entered the bathroom he/she would Velcro a “stop sign” to the door so no one else would enter, and take it down when they left.

Arrival/Dismissal:

- At *Pre-Prep*, during arrival and dismissal, students turn their name on an attendance chart.

Overview of Pre-K Curricula

Tools of the Mind:

We saw Tools of the Mind in practice at *KIPP Grow* and *Powell*. Tools of the Mind is a research-based curriculum.

It puts emphasis on play planning during which students identify where they are going to spend their time (e.g.: which center) and what they are going to do

there. Tools of the Mind considers more nuanced and advanced play that includes plot, characters, and props to be “mature make believe play.”⁵⁵ The curriculum teaches pre-academic skills such as learning to read and write one’s name, identifying patterns, and fine and gross motor activities.

According to national early childhood program leader at Teach for America, “Tools of the Mind is good early childhood teaching repackaged for the Common Core world.”⁵⁶

Tools of the Mind	Emergent Curriculum	Reggio
High Scope	Creative Curriculum	OWL/ Building Blocks

A 2008 study found that students in classrooms that used Tools of the Mind showed significant improvements in self-regulation and a decrease in behavior problems. However, they only scored significantly higher in one out of several early childhood achievement tests.⁵⁷ Furthermore, teachers trained in the Tools of the Mind curriculum scored higher in classroom management measures and used classroom time more productively.⁵⁸

Emergent Curriculum:

We saw emergent curriculum at *Yale*, *Tufts*, *Bank Street*, *The Coop School*, and *Fieldston*. It is based in the belief that what students learn should change with student interest. As such, one year, a class may do a deep inquiry of the seasons while the next year they may do an inquiry of water. However, teachers still guide the learning by infusing topics of student interest with developmentally appropriate skill development.

“If this play-based learning is what people are paying big money in private schools for their Pre-K students, and that’s considered the best education for kids, why are we not providing that for our kids for free?” — KIPP Grow Administrator in personal interview

Reggio:

We saw Reggio at UDC. Reggio's philosophy is very child driven – it believes that children learn best when they are pursuing their own interests. Accordingly, children's shifting interests determine the time spent learning about a topic. For example, Reggio classrooms have dramatic play and dress-up areas that change based on what a specific group of children have expressed a desire to learn about. This is why the environment is often called the “third educator” in the Reggio classroom.⁵⁹

“You have to be a really good early childhood educator to do Reggio well.” – UDC Administrator in personal interview

According to the Reggio philosophy, teachers act as “facilitators” who guide students in finding answers to questions that are interesting to them. Indeed, “the child is not viewed as the target of instruction, but rather as having the active role as an apprentice... learning is not something that is done to the child, but rather something she does.”⁶⁰ While specific early reading and math skills are not explicitly taught, students are exposed to academic concepts through play, music, and drama.⁶¹ Additionally, teachers observe and listen to children. They also document children's thinking and work.

High Scope:

High Scope is used at Head Start. The High Scope curriculum was piloted in the 1962 Perry Preschool Project in which the effects of the curriculum were longitudinally studied until age 40. High Scope contends that children learn best through play. It is a participatory-learning model in which adults encourage student work and actively engage in play when there are appropriate openings. They take on roles assigned by children and stay within the scenario that children create.⁶² Adults encourage children to independently problem solve. When conflicts arise, adults acknowledge children's feelings, ask open-ended questions to gather information, restate the problem, and ask children for ideas for solutions.⁶³

High Scope includes a “Plan-Do-Review” cycle. During the planning period, students spend 10 to 15 minutes planning what they will do during work time (e.g.: what center they will go to, what materials they will play with, and which classmates they will play with). After a 45 to 60 minute work-time, students spend 10 to 15 minutes “reviewing.” During this time, students recall what they did and reflect on what they learned.⁶⁴ High Scope also includes teacher-driven large group time that focuses on community-building through stories, music, or movement.⁶⁵

Creative Curriculum:

Creative Curriculum uses project-based investigations and a mix of small and large group activities. Creative Curriculum believes that play is instrumental for learning. Some of the centers in a Creative Curriculum classroom include dramatic play, blocks, music, computers and games.⁶⁶ It is designed to help students become excited about learning, feel comfortable in school, as well as develop self-confidence and independence.⁶⁷ Research regarding the effect of Creative Curriculum on Pre-K students found “no discernable effects” on oral language, print knowledge, phonological processing, or math.⁶⁸

Opening the World of Learning (OWL) Literacy and Building Blocks Math:

OWL and Building Blocks are two curricula that have recently come to prominence because Boston’s successful Pre-K expansion uses these tools. Both specify that children should spend significant time at activity centers.⁶⁹

OWL is a research-based curriculum developed by Pearson. It looks more like a traditional elementary school curricula. There is center time as well as small and large groups time with formally pre-planned teacher activities. There are established units of study that have books, songs, and other activities associated with them. OWL focuses on developing early language and literacy skills and includes a social skills component within each unit.⁷⁰ Using OWL, teachers help develop students’ phonological awareness by reading patterned and predictable texts, playing games that require students to carefully listen to the sounds of words, and encouraging students to write. Research shows that children using OWL achieved positive gains on receptive vocabulary assessments.⁷¹

Building Blocks develops children’s knowledge of simple arithmetic, geometry, measurement, and spatial relationships.⁷² It embeds mathematical learning into daily small and large group activities and was found to have positive effects on mathematics achievement.⁷³

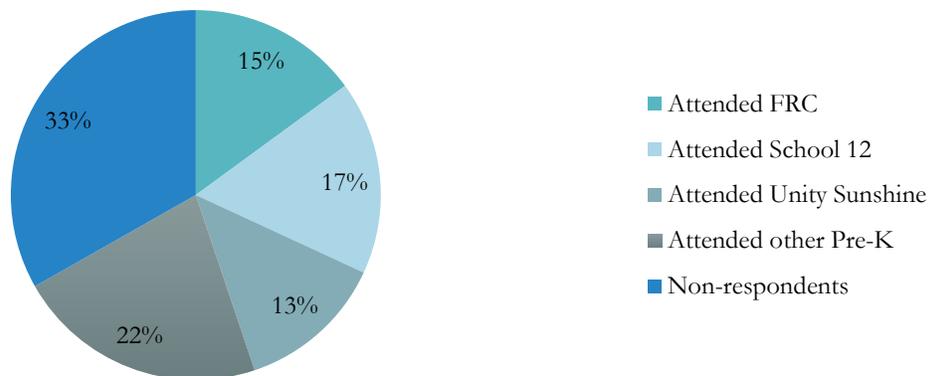
Uncommon Data Analysis

Uncommon shared with us attendance and student achievement data from the last three years for its Kindergarten students in the Upstate region. Additionally, they provided data for Troy Prep Elementary School that includes whether students went to Pre-K and what Pre-K they attended. Below we have summarized the available Pre-K location data for the 2014-2015 school year. Data from the previous years can be found in Appendix 17. While the data we had was quite limited, and included many non-respondents, our client Anna Hall has suggested Uncommon is making a more concerted effort to aggressively track and record Pre-K location data moving forward.

2014-2015 Troy Prep Elementary School Pre-K Location Data:

In the 2014-15 school year, there was no data on 33% of students. However, we know that 67% of incoming Kindergartners attended some Pre-K. Of the Pre-Ks that students attended, FRC, School 12, and Unity Sunshine were the most popular. 15% of incoming Kindergartners attended FRC, 17% of incoming Kindergartners attended School 12, and 13% attended Unity Sunshine.

Troy Prep Incoming Kindergartners SY 14-15



Student Reading Scores:

Our data analysis suggests that, in general, students enter Kindergarten reading at a STEP level -1 and leave Kindergarten reading around a STEP level 4 (which is above the Kindergarten end

of year benchmark of a STEP 3). Furthermore, Since Uncommon considers three STEP levels to be equivalent to a year's worth of growth, Kindergarteners at Uncommon are meeting academic benchmarks.

School	Mean Beginning of Year STEP Score	Mean End of Year STEP Score
<i>Rochester Prep Elementary School</i>	-0.90	3.83
<i>Troy Prep Elementary School</i>	-0.63	4.66
<i>Rochester Prep West Elementary School</i>	-0.91	4.39

*Rochester Prep and Troy Prep both represent the average of three years of data (SY 2011-2012 through SY 2013-2014). Rochester Prep only has data for SY 2013-2014.

Attendance:

There are fairly high levels of absence among Kindergarteners at all three schools in the Upstate Region:

School	Average Number of Absences in Kindergarten
<i>Rochester Prep Elementary School</i>	8.81
<i>Troy Prep Elementary School</i>	13.16
<i>Rochester Prep West Elementary School</i>	9.41

**Again, Rochester Prep and Troy Prep both represent the average of three years of data. Rochester Prep only has data for SY 2013-2014.

A regression analysis suggests that a student's beginning of year STEP score strongly predicts their end of year test score. Therefore, if an Uncommon Schools Pre-K were able to move more students to STEP 1 by the time they enter Kindergarten (which includes developing one-to-one correspondence, students writing their own name, and other skills that high-quality Pre-Ks offer), we may see an increase in student's end of year STEP level.

A student who is absent 10 days, on average, is 20% less likely to achieve the next STEP level than a student with perfect attendance.

Our analysis also reveals that absences are negatively and statistically significantly correlated with end of year STEP level. Each day a student is absent is associated with a two percent decrease in the probability that they achieve the next STEP level. The average student, who is absent 10 days, is thus predicted to have a 20 percent lower probability of achieving the next STEP level than a student with perfect attendance. This is most important for students who are on the cusp of achieving the next STEP level. Since Pre-K places a premium on developing family-school relationships that can drive down absences, if Uncommon launches Pre-K we may see both fewer absences and potentially greater student STEP gains.

A Vision of Early Childhood at Uncommon: Recommendations and Next Steps/Calendar

Central Question: What operational and instructional model for Pre-K, if any, would further Uncommon School’s mission in Upstate New York? This questions falls into two parts:

- Should Uncommon open Pre-K?
- What operational and instructional model would be best?

Starting with the first question, “Should Uncommon open Pre-K?” In short, yes. High-quality Pre-K is aligned with Uncommon’s mission. We have clear evidence that that Pre-K is beneficial for low-income children and that high quality Pre-K can influence student outcomes through and beyond college.

Current evidence suggests that Pre-K would set Uncommon’s Kindergarteners up for greater success in terms of academic and social-emotional development. Because high-quality Pre-K focuses so heavily on parent engagement, starting an Uncommon family’s experience with Pre-K could enhance the quality of Uncommon’s parent engagement in its K-12 schools. Furthermore, there are few options, especially in Upstate New York, for high quality Pre-K, so this would be a value-add for the community. From a practical standpoint, in New York City, other charter management organizations and public schools are beginning to open Pre-K, so Uncommon would potentially lose out on a group of children if it did not offer Pre-K and would have more work to do addressing achievement gaps than their peers.

However, in order to implement high-quality Pre-K, Uncommon will have to develop a philosophy of early childhood that is different from its current K-12 program.

High-quality Pre-K is about joyful, student-led, teacher-supported play. Because oral language is at the center of play, Pre-K teachers focus on getting children to engage in meaningful, frequent, and varied conversation. Pre-K also emphasizes social-emotional development. As such, children and teachers talk about feelings, resolve conflicts, and discuss what it means to be a good friend. A Pre-K classroom is rarely silent and never exclusively teacher-led. Teachers place great emphasis on family engagement and parents are often invited to the classroom.

It should be noted that parts of this are very different from Uncommon’s practices in other grades. Therefore, engaging in early childhood could change the way the network thinks about supporting its youngest students more generally.

Implementation Recommendations:

In addressing the second question, “What operational and instructional model would be best?,” we make the following recommendations:

General:

- We recommend that Uncommon’s Pre-K schedule includes outdoor time, nap, morning meeting and multiple opportunities for play. See Appendices five through 16 for examples of schedules.
- If Pre-K will be attached to an existing Uncommon elementary school, we recommend choosing a school with an enthusiastic principal who has demonstrated a commitment to understanding early childhood and already emphasizes social-emotional development.

Teachers and leaders:

- Because Pre-K is different programmatically from K-5, we strongly recommend that there be Pre-K expertise in the building. There should be highly experienced lead Pre-K teachers in each classroom (perhaps consider tapping into the network of teachers at Uncommon who have taught Pre-K before). If funding permits, there should also be a separate Pre-K principal who is highly experienced with Pre-K and could provide instructional coaching to all teachers. If funding is less available, we would recommend training an existing elementary school principal in Pre-K best practices. If this is the case, the most qualified of the lead Pre-K teachers should also serve as an instructional coach.
- All Pre-K teachers and leaders should be extensively trained in language development strategies using the CLASS assessment.

“Teaching early childhood is very different than teaching third grade.” – Powell Pre-K Teacher in personal interview

Parent Engagement:

- We recommend that teachers complete home visits for all students before the start of the school year.
- Parents should be invited to stay in the classroom when they drop their children off in the morning. This will enable them to develop stronger relationships with teachers and have a better understanding of what goes on in the classroom.
- Teachers should write daily or weekly newsletters or blogs describing what students are working on. This will also help facilitate communication between parents and children.
- Schools should host ongoing parent workshops to train parents in language development and continue to foster parent/teacher relationships.
- The Uncommon parent handbook should be updated for Pre-K parents. For example, the parent contract should change to reflect the increased expectations for parental involvement in Pre-K (e.g.: dropping students off in the classroom each morning).

Social-Emotional Development:

- Uncommon's Pre-K should include explicit instruction on identifying feelings (e.g.: the “feelings boards” at *Bank Street School for Children*) and students should learn how to talk about their feelings and recognize the feelings of others.
- Conflict resolution must include students. When conflicts arise teachers should talk about the problem with students and brainstorm solutions with them.
- Classroom rules should be student-generated so that students better understand their purpose and rationale.
- For behavior management, we recommend, “calm down corners” (like we saw at *Pave*), as well as encouraging students to “take a break.” Typically, color card systems have been unsuccessful in Pre-K. As such, we do not recommend them. Additionally, we recommend rewarding positive behavior and encouraging teachers to use gentle reminders.

Morning Meeting:

- Every day should begin with a whole class morning meeting that is infused with academically rigorous experiences like we saw at *UDC*, *Fieldston*, and *The Coop School*.

Classroom Environment

- We recommend that each classroom have its own bathroom and strong systems and routines in place for students to use the bathroom independently.
- The classroom environment should change as the units of study change. Additionally, student work should be displayed and there should be many different types of tactile materials that are accessible to students and sorted in intentional ways.

Next steps:

- As Uncommon continues the process of launching Pre-K, we recommend that network and school leaders visit the following schools: *KIPP Grow* (in DC), *DC Prep* (in DC) and *The Coop School* (in Brooklyn, NY). *KIPP Grow* and *DC Prep* are excellent examples of high quality Charter schools that have effectively translated their K-12 program into a strong Pre-K. Additionally, *KIPP Grow* has successfully used the Tools of the Mind curriculum. Lastly, *The Coop School* had a strong morning meeting infused with academic skills. Secondly, we would recommend visiting *Pave* (in Brooklyn, NY), who was very willing to share resources and ideas, and *UDC*, which also had a particularly strong morning meeting.
- Because Pre-K is new to Uncommon, and there is no internal expertise yet, we recommend that Uncommon start Pre-K with an externally developed curriculum. Of the curricula we researched and observed, we were most impressed with Tools of the Mind (which was used by *KIPP* and *Powell*). Additionally, *DC Prep* and *Pave* have internally-developed curricula that could be explored.

Data:

- Anna Hall suggested that moving forward, schools will more aggressively track Pre-K experiences of incoming students. We would recommend using this data to conduct further analysis of students' incoming readiness and the degree to which it correlates with Pre-K experiences.

Implementation Calendar

April 2015	<ul style="list-style-type: none"> • Review Angie/Paulene’s recommendations with network leaders • Decide whether or not to launch Pre-K
May 2015	<ul style="list-style-type: none"> • Decide which regions and schools will open Pre-K and decide on location/space for Pre-K • If need be, begin fundraising for Pre-K expansion
June-July 2015	<ul style="list-style-type: none"> • Review RFPs submitted this year by other districts or charter schools • If hiring separate principal with Pre-K expertise, start recruitment for that role • Talk to Flamboyant about best practices for parent engagement in Pre-K
August 2015	<ul style="list-style-type: none"> • Continue recruitment of principal with Pre-K expertise • Interview selected school leaders from other schools about start up issues to anticipate (Angie and Paulene recommend <i>Pave</i>)
September 2015	<ul style="list-style-type: none"> • Visit high quality Pre-Ks identified and recommended by Angie and Paulene with network leadership to further refine understanding of early childhood.
October 2015	<ul style="list-style-type: none"> • Continue to research Tools of the Mind (talk to schools who have recently implemented, and representatives from each curricula)
November 2015	<ul style="list-style-type: none"> • Start recruitment of highly qualified, experienced Pre-K teachers
December 2015	<ul style="list-style-type: none"> • Recruit teachers and staff
January 2016	<ul style="list-style-type: none"> • Recruit teachers and staff
February 2016	<ul style="list-style-type: none"> • Complete teacher and staff recruitment
March 2016	<ul style="list-style-type: none"> • Start to recruit students/families • Decide on curriculum and purchase materials for curriculum • Hold Family Orientations • When staff/teachers are hired, visit excellent Pre-Ks identified by Angie and Paulene with them • Begin any necessary building modification construction (e.g.: bathrooms in classrooms, playground in outdoor space)

April 2016	<ul style="list-style-type: none"> • Plan staff training with special focus on language development and play (with school leader) • Continue recruitment of students/families • Revise student/family handbook with behavior expectations, program overview • Hold Family Orientations
May 2016	<ul style="list-style-type: none"> • Continue to plan staff training • Continue recruitment of students/families • Develop professional development plans and observation protocols for Pre-K teachers • Hold Family Orientations
June 2016	<ul style="list-style-type: none"> • Hold staff training • Home visits for incoming Pre-K Students • Begin classroom set up
July 2016	<ul style="list-style-type: none"> • Hold staff training • Continue home visits
August 2016	<ul style="list-style-type: none"> • Open doors!

Conclusion

Uncommon would benefit from opening Pre-K. Offering Pre-K is aligned with the organization's mission of preparing low-income students to graduate from college. It would also improve Kindergarten readiness and accelerate academic and social-emotional growth for their students. However, Uncommon leaders should use the 2015-2016 school year as a time to prepare and improve their understanding of early childhood education. During this time, they should visit high-quality Pre-K programs, investigate curricula, and recruit teachers and school leaders with Pre-K expertise.

The research we have presented identifies the important components of a high quality Pre-K program. These include: emphasis on play, language development, and social-emotional development. As Uncommon explores these, and other pillars of high-quality Pre-K, they should continue to develop a clear vision of early childhood education that maintains their organizational values but has a distinct feel from their K-12 program. Even after Uncommon pilots Pre-K in the 2016-2017 school year, Uncommon should maintain a stance of continual learning and improvement in order to best serve the needs of their youngest learners.

Appendices

Appendix 1: Classroom Observation Protocol: Environment

What is on the walls? (i.e.: student work, curriculum-produced, teacher produced, word charts, data charts, etc.)

How is the classroom physically set up?

Look for: How many centers/stations are there and what are they? How many (if any) desks are there? Carpet area? Teacher desks? Space for student privacy? Space for gross motor skill development? Outdoor space? Centers (which ones?)

What materials are the student using?

Classroom Observation Protocol: Curriculum and Instruction

Curriculum being used:

What skill(s) is the teacher seeking to develop? (What is the objective of the lesson(s)?)

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What task(s) does she assign to promote the development of that/those skill(s)?

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To what extent does the teacher assess skill mastery? How does she assess skill mastery?

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What is being done in small group? What is being done in large group?

Small	Large
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What language development strategies are evident? (i.e.: serve and return, echoing, explicit questioning)

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What components are teacher-led? What components are student-led?

Teacher-led	Student-led
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Who initiates child transitions between activities? How long does a child spend at each center?
How do they move between centers?

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Observation Protocol: Teacher-Student Interactions

Adults: How many adults and students are in the room? What is the role of each adult?

Transition routines:

Behavior management procedures How long does it take for poor behaviors to be redirected/addressed? What evidence is there of student joy?

Bathroom procedures: Do they go by themselves or in a group? Are they attended to by an adult?

Meal procedures: When and where are meals? What are adult/child interactions like during meals? How long are meals? How are they structured? Who brings the food?

Miscellaneous:

Classroom Observation Protocol: Schedule and Micro-Interactions

Document 2-3 scripts of teacher-student conversational exchanges (without identifiers)

Overall Timeline:

Appendix 2: Interview protocol

This is the list of questions we used during our interviews. However, we modified the questions for individual interviews.

Beginning:

My name is (Angie McPhaul or Paulene Meyers) from Harvard University, and I am asking you to take part in my research study. I would like to interview you to learn more about your Pre-Kindergarten program. The interview will last about 45 minutes. Being in this study is voluntary. Please tell me if you do not want to participate at any time. You can skip questions that you do not want to answer or stop the interview at any time.

If you so request, I will keep the data I collect confidential, and will not share your personal information with anyone outside the research team. Otherwise, I'd like to be able to write up your responses in a case study to be published. Is using your name and responses publically okay with you? If so, may I record this conversation? If you have any questions, you can contact my research advisor, Josh Goodman, who can speak more to the work at Joshua.Goodman@hks.harvard.edu.

Opening Questions:

- What do you believe is the purpose of Pre-K?
- What do you believe 4&5 year olds should be learning?
- When did your Pre-K open?
- What were/are your organization's goals when opening a Pre-K? (Probe: What is your theory of change with Pre-K?)
- How many students do you have now? How many 4 year olds? How many 3 year olds?
- How many teachers? How many paraprofessionals?
- How are they divided up? (i.e.: 12 students with a teacher and paraprofessional)
- Where is your Pre-K physically located in comparison to your K-12?
- Is the intention for all of the students in your Pre-K to start in your Kindergarten program after?
- What is the retention rate between students in your Pre-K who then attend your K program? What percent of your Kindergarten students when through your Pre-K?

Student Demographics:

- How do you recruit for Pre-K? How has this changed from early in your program? Has this method been successful and met your needs?
- What is the student make up (race, social-economic status, gender) or your students?
- Can you share your attendance data for Pre-K? If it is less than desirable, how are you trying to remedy that? If not, what are you doing to ensure high attendance?

Teachers:

- What are your teachers' experience and education levels?
- What is the training and PD for early childhood teachers? How is this different from your K-12 educators? How often is training/PD?

- How do you recruit teachers?
- What is your teacher's typical day? (Probe: When do teachers arrive? When do they leave? When do they get a break in the day?)

Data:

- What data do you collect for incoming students?
- What outcomes do you track? How do you track them? (Probe: Do you collect social/emotional data? How do you track that?)
- How do you measure student growth? In academic and social emotional?
- To what extent did your Kindergarten (and beyond) change/improve after adding Pre-K?
- How does your Pre-K data differ from Kindergarten data? Why did you choose to collect data of this type for Pre-K?
- How do you measure teacher effectiveness? (Probe: How often are teachers observed/receive feedback?)

Funding:

- Where were your initial sources of funding?
- How much funding do you get per student from the state?
- From where do you get your funding now?

Facilities:

- How did you learn of facility requirements?

Program:

- Walk us through your typical Pre-K students' day. (Probe: When does your day start? When does it end? Is there a nap time? When is lunch? How long and when is recess?)
- What type of parent engagement do you do? (Probe: How often do you communicate with parents? In what ways do you communicate? How is this different or the same as with older students?)
- What is the curriculum you use? What other curriculums did you consider? How did you decide on the one you have?

Concluding:

- What was the biggest challenge opening Pre-Kindergarten? What was something you did not anticipate?
- Do you have any other things you'd like to share?
- Would you be willing to speak again?

NY State Specific:

- With what state and local agencies do you interface? What is the nature of your relationship? (Probe: How often do you meet? What type of conversations?)
- How much per pupil funding do you expect next year?
- Where do you get your most up-to-date information about regulations and funding?

Thank you for being willing to talk today. We are looking forward to writing up what we've learned and sharing this with Uncommon. We'll be sure to keep you apprised of the final outcome.

Appendix 3: Uncommon Conversations

The Culture of Uncommon Schools:

Classrooms at Uncommon are very systematized. According to Rochester Prep Principal Jamie Brillante, “The school feels cohesive and predictable to children.” There is also a lot of singing, cheering, and chanting. The whole school gathers weekly to celebrate the successes of the week.

Additionally, the schools are very structured. Painted lines on the floor show students where to walk in the hallway and there are expectations about the way students should raise their hand. According to Jamie Brillante, this leaves more time for learning, as no time is wasted in transitions. Troy Prep Principal Katie Yezzi characterized this as “structure with a purpose.” Furthermore, Uncommon’s Kindergarten program is quite rigorous. By the end of Kindergarten students are typically reading STEP 4 books. There is homework every night, as well as during summer and winter break.

Each spring Uncommon assesses the STEP level of all incoming Kindergarteners. This gives teachers a sense of which letters and sounds students know, whether or not they know how to rhyme, if they can write their name, and if they understand concepts of print like reading from left to right. Some schools also give an informal math assessment in which students count numbers. Lastly, there is a very clear attendance policy at Uncommon. If a student is absent ten or more days, they are in danger of retention.

Goals for Pre-K:

General School Readiness:

Overall, many Uncommon teachers and school leaders suggested that the purpose and goal of Pre-K should be to help get students ready for Kindergarten. Rochester Prep Principal Emily Volpe stated that Pre-K should “set a good foundation for basic skills we feel like they would need in Kindergarten.” Katie Yezzi stated that Pre-K would allow Kindergarten teachers to get to more thinking more quickly and allow students to settle in more quickly.

Academic:

Emily Volpe said that parents are often shocked when they find out that their child cannot write their name even though he or she went to Pre-K for two years. Additionally, teachers at Rochester Prep who used to work at local Pre-Ks confirmed that the focus was not academic.

Former Pre-K educator and current Leadership Prep Canarsie Kindergarten Teacher Mallorie Bocachica stated that in her Kindergarten classroom, seven students attended Pre-K but it does not show.

Kimberly Schultz, Rochester Prep Dean of Curriculum and Instruction, stated that she believes students should come to Kindergarten knowing their letters and numbers so that we can “take them further.” Christine Wicks, teacher at Leadership Prep Bedford Stuyvesant and former Pre-K educator, stated “I’ve seen the difference in growth that our incoming Kindergarteners who know their numbers, letter names, and sounds make compared with the students who come in with no background in either math or reading. Students who do not have these building block skills take the first couple of months of school to ‘catch up.’” Emily Hoefling, Principal of Leadership Prep Canarsie, stated that there should be a set of baseline goals that all Uncommon Pre-K students should achieve by the end of the year.

Literacy: Reading and Writing:

Jamie Brillante would want Pre-K to “set up a rich literacy foundation so that when students enter Kindergarten they can be more successful with the basic building blocks.” Emily Volpe stated that she would want all Pre-K students to achieve the “Pre” STEP level. This would mean that they can write their first and last name, identify at least 15 letters (though she would want them to identify all of their letters), identify 6 out of 10 rhyming words, and understand concepts about print (including where to start reading and what to do at the end of a line). Although there is no sound-letter identification target for the “Pre” STEP level, she would want Pre-K students to know all or most of their sounds. Specifically, Jamie Brillante would like students to coming to Kindergarten knowing all of their letters, upper case and lower case. Katie Yezzi and Nicole Collins stated that they would want students to know all of their letters and sounds as well as knowing the Pre-K sight words. In addition to sight word knowledge, Christine Wicks added that she would want students to learn one-to-one correspondence and segmenting. She would also like Pre-K students to develop their vocabulary and basic reading comprehension skills including identifying character actions and feelings. Additionally, Rochester Prep Kindergarten teacher Emily Berwind would like students to know about rhyming. With regard to writing, Emily Volpe stated that she would want students to have a firm pencil grip, be able to at least write their name, and to be comfortable writing letters.

Counting and Identifying Numbers

Many of the school leaders and teachers whom we spoke with suggested that Pre-K should help students count and identify numbers. Emily Berwind said she would like students to identify and count numbers between one and 30. Katie Yezzi stated that she would want students to be able to count to 50. Emily Volpe stated that she would want students to know how to count and represent numbers up to at least 20. Nicole Collins mentioned that students should be able to identify numbers one through 20 and count up to 100. Christine Wicks also mentioned that she would want Pre-K students to have some exposure to basic addition and subtraction.

Number Sense, Sequences & Patterns

Jamie Brillante would want Pre-K students to learn about sequences, develop number sense, and the ability to understand what it means to have “something” v “nothing” v “more.” Additionally, Jamie Brillante, Christine Wicks and Emily Berwind all suggested that Pre-K students learn how to identify patterns.

Shapes and Colors

Both Rochester Prep Principals (Emily Volpe and Jamie Brillante) as well as Nicole Collins said that they would want Pre-K students to know their shapes and colors. Nicole Collins also said that Pre-K students should learn about right versus left.

Calendar

Jamie Brillante, Katie Yezzi and Kimberly Schultz all stated that they would want Pre-K students to develop calendar skills (including the days of the week, and what a calendar looks like). Ms. Brillante added that she would also like students to know the four seasons by name.

Social-Emotional development:

Christine Wicks stated that there would need to be more social-emotional education. Kimberly Schutlz stated that she would want a Pre-K program to help students develop a positive attitude for school. Similarly, Katie Yezzi stated that she wants Pre-K children to know “what it means to be a student.”

Jamie Brillante and Nicole Collins mentioned that Pre-K students should learn how to share. Jamie Brillante and Katie Yezzi mentioned that Pre-K students should learn how to take turns. Ms.

Yezzi also added that students in Pre-K should learn how to recognize their personal space and the personal space of others.

Additionally, Katie Yezzi and Jamie Brillante said that they would want students to develop communication skills. In particular, Jamie Brillante stated that she would want students to know how to use their words to express frustration. Mallorie Bocachic stated that Pre-K should foster social-emotional growth by helping students identify how they are feeling.

Troy Prep Kindergarten teacher Jamie Williams stated that she would want Pre-K students to develop social skills and build friendships.

Gross and Fine Motor Skills:

Jamie Brillante wants Pre-K students to develop gross and fine motor skills. Jamie Williams would also like Pre-K students to develop the ability to trace. Christine Wicks stated that there would need to be a major increase in physical movement activities throughout the day. Kimberly Schultz also mentioned that Pre-K is an opportunity to do early intervention (for OT and Speech services).

Several teachers mentioned that Pre-K students learn how to independently complete tasks like zippering their coats and tying their shoes. For example, Jamie Brillante mentioned that she would want students to know how to put their coat on by themselves and button their pants. Nicole Collins suggested that in Pre-K students also learn how to navigate stairs. Lastly, Nicole Collins mentioned that Pre-K students should learn to try new foods.

Concerns:

Facilities/Location:

According to Anna Hall, of the two Uncommon cities in Upstate New York, the network has a uniquely positive relationship with the Rochester district. Rochester also has a larger student population, more donors, and more available space. In Rochester, Uncommon owns a three-floor building. They have not yet used it for anything. However, the building could house two or three classrooms. In Troy, there are two former school buildings Uncommon anticipates will be for sale in the near future. Jamie Brillante expressed concern around the lack of outside space at their facility. Many teachers and leaders also expressed concerns over bathrooms, and whether they would need to be in classrooms or there would need to be more stalls.

Emily Hoefling suggested that Uncommon should be strategic about where it pilots Pre-K. Because the 42 Uncommon have slightly different cultures, it would be best to open at a school that places relatively more emphasis on social-emotional growth and character development.

Funding:

According to Anna Hall, Uncommon is willing to incur one time startup costs, but there's not a "blank check." They might be willing to operate at a deficit, but it depends on how large the deficit is and how long it lasts. There are also donors who would support the launch of Pre-K.

Behavioral Expectations:

Emily Berwind expressed concern that the culture at Uncommon may not be developmentally appropriate for Pre-K. She asked, "Would they be expected to sit silently with their hands in their lap while they listen to a story?" Additionally, Jamie Brillante stated, "I know behavioral expectations would have to look different. How different? I don't know."

Emily Volpe stated that the school's "color card system" for behavior management may not be appropriate for Pre-K. Emily Berwind also suggested "easing" students into the behavioral expectations. For example, by the end of the year behavior expectations could become more similar to what is expected in Kindergarten.

On the other hand, Emily Hoefling suggested that behavior expectations stay simple and easy-to-explain to children. For example, "when I am talking, you don't" or "sit on your bottom." She did not believe there needed to be a behavioral expectation around hands folded or STAR position. She said that during Kindergarten orientation, Uncommon does not have any trouble getting kids to learn about STAR and other behavioral expectations. She also said that in Pre-K it is even more important for students to understand the rationale for behavioral expectations. For example, we don't talk in the hallway so that our other friends can learn. Christine Wicks believes that the behavior chart system could remain the same, but expectations for sitting in STAR would have to be different. For example, students would be expected to sit "crisscross," with hands in lap, sounds off, and listening, but there could be more "wobble room."

Mallorie Bocachic stated that in Pre-K the "warm/strict balance" has to air more on the side of warmth. Lastly, many of the teachers and leaders we spoke with wondered about whether Pre-K students would need more bathroom breaks, how long their nap needs to be, and what kind of uniform they would wear.

Length and Structure of Day:

Jamie Brillante and Kimblery Scultz wondered whether the Pre-K day would be the same length as Uncommon's K-12 day. Christine Wicks suggested that the daily schedule begin with a Morning Circle that includes basic reading skills, songs, calendar, etc. She suggested that Morning Circle be followed by centers that include a literacy center, writing center, house center, library, science/exploratory center, and art center. She also suggested there be a Physical Education/Recess block, a math lesson/activity, story time, lunch/nap and afternoon centers.

Incorporating Play/Movement:

Nicole Collins, Kimberly Schultz and Jamie Williams all mentioned that there would need to be a lot more time for play. Kimberly Schultz said that it would be important to find "a strategic balance between the academics we want and the playtime that is necessary for three and four year olds." Mallorie Bocachica stated, "we need structure, but we also need to be mindful of what is developmentally appropriate." She said that in Pre-K there would need to be more opportunities for movement, and teachers should expect students to be wiggly.

Katie Yezzi said figuring out how to bring rigorous and purposeful play to Pre-K would be an exciting challenge. She also mentioned that this could change the way Uncommon thinks about play, even in Kindergarten classrooms.

Jamie Williams also stated that Uncommon Kindergarteners spend a lot of time at their desks, but that Pre-K would require more movement. She imagines that there would need to be more strategic differentiation and more small groups. Jamie Brillante also acknowledged that there seems to be more active learning in Pre-K, especially due to the use of centers.

Kimberly Schultz suggested that Pre-K's structure (including the schedule and activities) change throughout the course of the year. By the end of the year, the Pre-K classrooms may look like Uncommon's Kindergarten program. Zenovia Duke agreed. She suggested that by the end of the year, the Pre-K program look like Uncommon's Kindergarten classrooms.

Lack of Internal Expertise:

Katie Yezzi expressed concern about the lack of internal expertise around Pre-K. She suggested forming a partnership with UPK and Head Start Providers in the area. Emily Hoefling shared this concern. As such, she suggested that a boxed curriculum be used instead of an internally developed curriculum. She said that Uncommon would not have the internal expertise to write their

own Pre-K curriculum, at least at first. Nicole Collins recommended that Uncommon use Creative Curriculum for classroom setup.

Emily Hoefling also stated that, “someone in the building needs to have (Pre-K) expertise.” However, if Pre-K opened at her school she would to feel as if she were a part of the process.

Transition to Kindergarten/Gap between students who do and do not attend:

Jamie Williams and Katie Yezzi expressed concern that an Uncommon Pre-K program might create a larger gap between those who attend and those who do not. However, Katie Yezzi also suggested that an Uncommon Pre-K could force other Pre-Ks to raise their bar. There was also concern around how to transition students to new behavior expectations in Kindergarten.

Willingness to Adapt Culture/Program for Pre-K:

Overall, Uncommon teachers and school leaders understood and were comfortable with the idea that Pre-K would look very different (culturally and structurally) from the K-4 classrooms at their school. Teachers were more concerned with making sure that students get the building block skills they need. Currently, they just give incoming Kindergarteners a summer binder and hope students complete it.

Appendix 4: Schools Visited and Interviewees

New York City:

Bank Street School for Children

- Contact: Ronnie Sampson (Visitor Guide)

The Coop School

- Contact: Meredith Gray (Director)

Fieldston School

- Contact: George Burns (Principal)

First Step NYC

- Contact: Joan Kuo (Center Director)

Pre-Pave Academy

- Contact: Denise Frias (Director of Operations)

Pre-Prep (Public Prep)

- Contact: Haifa Bautista (Program Director)

Boston:

Eliot Pearson Children's School (Tufts)

- Contact: Hanna Gebretensae (Director)

New Haven:

Calvin Hill Day Care Center (Yale)

- Contact: Carla Horwitz (Center Director, Yale Professor)

Washington, DC:

DC Prep

- Contact: Maura Ross (Assistant Principal) and Jamie Hernandez (Early Childhood Instructional Coordinator)

KIPP Grow

- Contact: Stacie Kossoy (Principal) and Lauren Ellis (Vice Principal)

Powell Elementary

- Contact: Krystal English (PK-3 Teacher)

UDC Lab School

- Contact: Larrisa Wilkinson (Director/Lead Teacher)

Appendix 5: School Overview: Bank Street School for Children

Curriculum: Emergent – based on student interest. Also use Sounds in Motion and Handwriting without Tears. For math, TERC math and Constructivist Mathliving.

Assessment: Teachers collect video and write observation notes

Teacher to student ratio: 3:20, 1 Lead teacher, 1 assistant teacher, 1 graduate student

Relationship to K-5: Attached to an elementary school

Private/Socioeconomic status: Charges tuition, largely wealthy

Contact: Ronnie Sampson (Visitor Guide)

Bank Street School for Children offers Pre-Kindergarten for two classrooms of 3-year-olds and two classrooms of 4-year-olds. They are also a training ground for graduate students.

Philosophy in their own words:

“I think one of the biggest purposes of Pre-K is this introduction to a social world, being an individual and getting to know yourself as an individual but also be(ing) part of a group.... we have these 20 kids here. Families are big part of what they think about ... Sensory exploration is so important for kids who are 4 and 5... Dramatic play is a huge piece of what I think it important for 4 and 5 year olds. That’s really how they express their feelings, what they are learning, what they are thinking about”– Director of Early Childhood Programs

Strengths of Academic Program

- Family shares: all parents are invited in to present something about their family – a favorite place to visit, a family tradition, etc. Students practice listening, asking questions, learning about others.
- Families fill out a family history form at the beginning of every year. The form includes questions such as: What was the child’s first word? Have they experienced death? Are there any hospitalizations in the family?
- Dramatic play is ever-changing because students work with blocks to build their play settings (it was a boat the day we were there) instead of teacher-created settings. The dramatic play can take on many different themes and is very dynamic. These same blocks are outside at recess.
- Story acting was a time in which a student-created story would be acted out by the classmates. In the process of putting on the play, students heard the story three times, identified characters, and listened for and acted out plot lines.

Other things of note: Strong social emotional development

- Students create feeling boards with pictures of each individual showing different emotions – students can then use these boards to tell how they are feeling throughout the day
- When there is a conflict, teachers sit down all students involved and have an extended conversation starting with “blowing out 3 birthday candles” (taking 3 deep breathes)
- Teachers identify social skills students are working on. I.e.:”Today X, something you’re working on is being okay with not getting what you want right away.”
- Students practice yoga and have regular movement
- The list of classroom rules is student-generated (e.g.: “don’t crash your friend’s structure”)

Bottom Line: Bank St. has an impressive program, especially in their social-emotional development.

Schedule:

8:30 Arrival and Free Choice
9:00 Morning Meeting
9:15 Outdoor play
10:00 Snack
10:15 Work time meeting
10:30 Work time (centers)
11:30 Story Acting or Meeting
11:45 Lunch
12:15 Rest
1:15 Movement or work time (centers)
2:15 Story/Share
2:45 Begin Dismissal

Appendix 6: School Overview: The Coop School

Curriculum: Internally-developed
Teacher to student ratio: 3:21.
Most kids are full-time (2 leads and 1 assistant or 2 assistants and 1 lead)/ There is one male teacher in each room.
Relationship to K-5: Same building
Contact: Meredith Gray (Director)

The Coop School serves a middle class clientele. Many families leave after Pre-K for public options. Classrooms have a high teacher to student ratio, which they believe is important in order to engage students in play.

Philosophy:

During Pre-K, children should develop autonomy and the skills needed to maneuver multiple social and academic situations.

Pre-K should be play-oriented. Play is not just something that occupies young children's' time, it is how they learn. Pre-K students should learn to make critical observations and ask questions. They should be invested in and feel a part of their community.

Strengths of Program:

- Parent engagement: they believe that so much of how a child is doing is based on parents. Parents are actively required to be involved and are always invited to the classroom. According to Ms. Gray, “developing a warm relationship with parents is as important as developing a warm relationship with students.” Teachers update their classroom blogs weekly email newsletters to parents daily. This opens up communication between parents and children because children might not be able to remember or express what they did in school that day. Parents stay after dropping their child off and teachers talk to parents.
- Students go outside (on a rooftop playground) everyday. Teachers watch what happens outside and integrate it into the classroom.
- Specials include gardening, woodshop, yoga, science, music, and art.
- During arrival, some students trace uppercase and lowercase letters with a whiteboard marker on a plastic sheet. Another student is drawing a picture. When she is done, the teacher tells her to write her name on it. When she says she doesn't know how, the teacher draws a “W” (the first letter of her name) and has the student practice drawing a “W”
- Academic skills are infused into transitions:
 - To start cleanup, students count down from ten and students sort markers by color during clean up
 - As teacher calls students to go from the rug to the bathroom, she spells their first name. When they hear their first name being spelled, they know to get up.
 - As students transition, they complete a clapping pattern that involves saying their first and last name
 - As students walk toward the bathroom, a teacher measures their height against a wall and asks questions like “do you think _____ is taller or shorter than _____?”
 - During arrival students answer a posted question with the help of their parents. In one classroom the question was “What word begins with the same sound as our Woodshop teacher's name? Flower, Snow, or Rhino.” In the other classroom, there is a photo of flowers and the question reads “How many flowers are there? 7 or 11?” The answer is reviewed during Morning Meeting.

Morning Meeting:

- Morning Meeting starts with a nursery rhyme (Hickory, Dickory, Doo) and stretch

- One student’s job is to read the schedule for the day. One student’s job is to count how many students are there. The teacher then asks, “If there are 18 friends here today, how many friends are not here?” students make predictions and then they check by counting the number of names on the “at home” side of the attendance chart.
- Calendar: The teacher points to a sentence that says “Today is Thursday.” She puts her finger on the word Thursday and says “raise your hand if you know what this says.” When a student answers “Thursday,” she asks “How do you know?” and the student says, “because of the “Th””
- Number of days in school: The teacher says “Yesterday we were in school for this many days (pointing to the number 76).” Students then read “76.” The teacher asks “What is the number today?” As a class, students count from 71 to 77. She then asks a student to point to a “7”
- Weather: Teacher says “Yesterday was cold and sunny. Is today cold and sunny?” and asks a student to go to the window to check if it’s sunny.
- A “Morning Message” is posted. There are dragonflies drawn in different places. Before reading the message, the teacher asks students to count the dragonflies. Then, she calls on a student to read the message with her, while the rest of the class copies one word at a time.
- In one class, during morning meeting they brainstorm six places where you can find water. Students raise their hands to share and the teacher writes down students’ ideas.

Behavior Management:

- Before morning meeting, the teacher tells students to “send their voices on vacation”
- In one classroom, the teacher reviews expectations for “Whole Body Listening” (watching eyes, listening ears, voices off, still hands, legs crisscross apple sauce or French fry if you’re wearing boots)
- When students talk over each other, the teacher says, “How can we be supportive of (student’s name)? What can we do with our voices?”
- Teacher says “I want to give a compliment to (student’s name) for waiting patiently”
- After one student receive several “warnings” from the teacher, she asks him to “take a break.”

Curriculum:

- Their curriculum is internally-developed. During the first units students study family and their community. Over the summer, all teachers write a letter home asking students what they would like their class pet to be. This is the first thing they learn about when the school year starts.
- After a teacher broke her knee, students became interested in bones and they did a bone unit. When a teacher was pregnant, students became interested in babies, and they did a babies unit.

Lessons Learned and Recommendations:

- It’s hard for some kids to sit still and they shouldn’t be punished for that. They may just need to take a break to run around the room. It’s important to figure out tools to work with kids who are fidgety.
- Parent involvement is key. It’s important to solicit feedback from parents, and not just dismiss it.

Pre-K Schedule:

One classroom runs from 8:30- 3:30 and the other runs from 9:00 – 4:00
 Morning Meeting (approx. 25 min)
 Specials include woodshop, gardening and yoga.
 Recess (on rooftop playground)

Bottom Line: The Coop School has a strong morning meeting that is infused with a lot of academics.

Appendix 7: School Overview: Fieldston

Curriculum: Internally-developed

Teacher to student ratio:

2:19 – Pre-K 4 (one lead teacher and one assistant). There is also a well-trained floating assistant who comes in and allows teachers to take a break. Their target is 18 students but they send out 22-23 acceptances and cannot always accurately predict yield.

Relationship to K-5: In the same building

Contact: George Burns (Principal)

According to the Principal, Fieldston is an elite independent private school serving affluent families so kids come in with certain experiences, especially in literacy. There is one Pre-K classroom.

Philosophy:

They believe that a big piece of Pre-K is to socialize students to a classroom community. As such the curriculum focuses on who each child is and what it means to be a responsible community member. Students study the natural world and the world around them (including things like seasons and the weather). Fieldston

believes that it is important for students to learn how to be in a group and share things, and how to speak up and articulate their ideas.

Strengths of Program:

- Parent engagement is strong: Parents can, and do, stay in the classroom after they drop their student off, and leave by the time Morning Meeting starts. Parents and teachers email a lot and there are Parent Education Nights. The school also offers to host play-dates for students at their playground.
- Student artwork on walls is labeled with descriptions dictated by students and written down by teacher. For example, next to a student's picture a teacher wrote, "a cheetah looking at the water because he wants to go in but couldn't."
- There is a feelings board where students velcro their name under one of the following feelings: excited, mad, sad, lonely, scared, worried, I want mommy/daddy, happy.
- Their lead Pre-K teacher has been there for many years. According to the Principal, her "developmental understanding of kids is excellent."

Morning Meeting:

- When a student mentions being stuck in traffic because of the snow, the teacher says "let's count how many students were stuck in traffic today."
- Teacher first asks students to look around and see who is absent. When they realize that one student is absent, she says, "If we have 19 students when no one is absent, how many students do we have today when one is absent?" She gives everyone a chance to think and then all students give their guesses (18, 19, 25, 400, etc.) The teacher then says they will check by having a student count.
- It is one student's classroom job to count how many students are there today (he counts individually in English and Spanish) and then they count as a group. Other students are quiet while he counts so he can concentrate.
- During meeting the teacher fills in the next day on the calendar and students say, in unison, "Today is Friday, January 9, 2015"

- They also have a weather chart that they fill out during Morning Meeting. The teacher says, “What is the weather today, Jared?” and the student responds “cold and snowy.” The teacher then adds this to the chart.
- Lastly, students and teachers practice a clapping pattern together (e.g., lap, clap, clap).

Assessments:

- They are making a greater effort to specifically track developmental and cognitive milestones but have received pushback from faculty who think they are assessing too much and are concerned that they are making Pre-K too academic.

Behavior Management:

- During meeting, to get students to face forward, the teacher says “point your nose at my nose.” When they are lining up to go in the hallway she says “point your nose at the person in front of you.”
- When students are talking during meeting she says, “If everybody talks at the same time, how can we hear each other?” When they are talking while a child is trying to count she says, “It is hard for him to think while children are talking.”

Bottom Line: Fieldston is an elite NYC private school. They have infused explicit academic instruction into their Morning Meeting, and have strong parent engagement. They manage student behavior in a kind, rational, and age-appropriate manner.

<p><u>Pre-K Schedule:</u> Meeting Out time Snack Movement Work-time Lunch Blocks Movies (Friday only) Bucket Work Time Snack Meeting</p>

Appendix 8: School Overview: First Step NYC

Curriculum: Creative Curriculum
NYS Pre-K Common Core
Foundations and NAEYC
benchmarks and standards
For Assessments: teaching strategies
GOLD, CLASS and ECERS
Teacher to student ratio: 3:15 in 3-
year old classrooms; 3:20 in 4-year-old
classroom (8AM to 6PM); 2:11 in
UPK classroom (8AM to 2:30PM)
One teacher/classroom is an intern
from Hunter, Bank Street, etc.
Contact: Joan Kuo, Center Director
*Our visit included an extended
interview and guided observation, but
we did not spend time in classrooms.

First Step NYC serves children from birth to age four in a low-income community. They blend multiple funding streams including federal early Head Start money. They also receive UPK funding and use private money to support things like having three teachers per classroom (although all except one of the teachers are not on the same pay scale as NYC K-12 teachers). The school runs year-round.

Strengths of Academic Program:

- Teachers push in language during play.
- During small groups, students work on specific skills (e.g.: cutting, how to hold writing utensils).
- Strong parent engagement: “If you want children to learn and grow, not just in the classroom but for life, the parents have to be there.”
 - There is a large family support team with family support specialists made up of a number of social workers
 - Parents are encouraged to stay in the classroom in the morning for as long as they can.
 - There are yoga classes for parents and students.
 - Parent Policy Committee gives parents the opportunity to give school input
 - There are parent-run workshops based on parent interests (e.g.: knitting workshop, new father workshop)
 - Interns (From the City Tech Nursing Group) hold nutrition or asthma workshops, etc.
 - There are well-attended events for parents including festivals and picnics.
 - There are family and community bulletin boards outside each classroom (as well as bulletin boards that highlight student work)
- Teachers get planning time during nap and an hour break.
- A “Feelings Poster” on the wall shows labeled pictures of different emotions.
- In the four year old classroom, there is a “Letter of the Week” and a song to go with it. Students sing this as they transition (e.g.: “R is for rain, it falls from the sky. R is for...”)

Challenges:

- They are working on the transition to Kindergarten, because their students attend Kindergarten in the same building but run by the city that is less progressive and struggling academically.

Bottom Line: First Step NYC has high community involvement. They invite families in and provide many services and amenities for families and parents to make them an integral part of the school community.

Schedule:

8AM- 6PM (Note: Teachers work on a staggered schedule so there is someone there until 6)
- 15 minute whole group time in the morning
- Read Aloud twice per day
- Centers for 60 minutes (students choose where to go)
- Music and movement breaks
- Two recesses (and two large playgrounds)
- Mealtime: students drive conversations, teachers eat with children

Appendix 9: School Overview: Pre-PAVE

Pre-PAVE is in their second year of operation with two classes of 18 4-year-olds. PAVE is a high performing, rigorous charter school serving low-income students similar to Uncommon.

Curriculum: Internally-developed. A lot is borrowed from DC Prep’s curriculum but they also use Eckers and High Scope.

Assessment: Powell’s Phonological Awareness and GOLD

Teacher to student ratio: 2:18
The two teachers are equal co-teachers. A third teacher pushes in for small groups

Relationship to K-5:
There is an elementary and middle school attached but students are not automatically enrolled in Pave

Private/Socioeconomic status:
Low-income students

Contact: Denise Frias (Pre-Kindergarten Operations Manager)

Philosophy in their own words: “It is our job to prepare them not only academically but also social-emotionally for school. We teach a lot of social skills. Our kids come in at three and four (years old) and lack a lot of skills to get along with their peers and interact with their teachers... [we are] helping them learn how to ask for help, learn how to cooperate and be a student in a school but also [to] be a good person... To us, that’s just as important as knowing early literacy skills. But with that, we also do teach a lot of early literacy skills. We want our children leaving Pre-K knowing all their letters, letter sounds... and [for] kids who are ready to be reading, we are supporting through learning sight words and those early reading skills and comprehension.” – Director of Early Childhood

Strengths of Academic Program:

- “Word play” is a 15 minute whole group poem/song with the letter of focus highlighted. Students were joyously working on rhyming and the letter “w” in singing “Willaby, Wallaby Woo”. Teachers had opportunity for checking for student comprehension of rhyming with each individual getting to add a rhyming word to the song.
- During “small groups” – the most explicit instructional piece – children are divided into three groups of six and the special education teacher pushes in.
- Centers (which included writing, discovery, art studio, puzzles and games, and dramatic play) had many authentic play opportunities, including a community-related dramatic play center (a subway station).
- Strong evidence of teachers calming students down with creative techniques: “Smell the flower (breathe in), blow out the candle (breathe out).” There was also a “calm down corner” in the classroom that showed steps for how to calm down.
- There were strong routines in place. A poster on the wall showed “How to Greet a Friend,” “How to Walk in Line,” and “Morning Routine Rules.” Tape on the floor showed students where to line up. To reward positive behavior, teachers give paper hearts to students called “Love its.”
- To support social-emotional development, there was a “feelings” poster on the wall, with labeled photos of different feelings. When a child doesn’t get called on, the teacher models saying “Oh well, maybe next time.”
- There are home visits before school starts and parents fill out a survey at the beginning of the year. The survey includes: the types of activities their child enjoys, what their child does when they are scared or nervous, the best way to comfort their child, something their child is good at and something they’d like to see their child improve in, etc. Parents are also sent a report card

every trimester that anecdotally shows the student’s progression across the following domains: social-emotional, literacy, writing, math, science, social studies, and behavior.

Other Things of Note: Relationship to K-8

- Pre-PAVE has its own Principal, Director of Operations and Special Education teacher, all with early childhood experience. They have a lot of decision-making power and are part of the school-wide leadership team.
- Strong adaptation of K-8 procedures: In the upper school, before students transition, they have a 1-2-3 count. (i.e.: 1— sit in SHARP.) But in Pre-K, it is 1 — show me your smile.
- Pre-PAVE was the most willing to share programmatic and operational details such as funding details, parent engagement artifacts, etc.

Advice:

- You have to find the “balance between the charter school’s model, but also what’s developmentally appropriate for Pre-K... We use a lot of positive reinforcement... instead of just focusing on the negative behavior.... Sitting in SHARP is definitely important for our kids to understand and start learning but it’s definitely not something that is appropriate right now.” – PrePAVE Principal
- They are still working on the Transition to K and how to make that smoother.
- It’s hard to explain to those unfamiliar with early childhood that students are really learning through play.

Bottom Line: Pre-PAVE has a very strong program and has a lot to teach Uncommon about both operating Pre-K at a high-performing charter school and New York State regulations.

Schedule:

8:00 Morning Meeting
8:15 Centers
9:15 Small Groups
9:30 Recess
10:10 Story Time
10:30 Word Play
10:45 Lunch/Bathroom
11:45 Nap
12:45 Math Meeting
1:00 Centers
2:00 Small Groups
2:15 Closing Meeting
2:45 Dismissal
(Elementary school gets out at 4:00, but Pre-Pave ends earlier this year because last year ending the day at 4 felt too long.)

Appendix 10: School Overview: Pre-Prep (Public Prep Network)

Curriculum:

UPK Common Foundations and add on a lot of literacy (Vertically aligned with Public Prep's K-8). For assessments they use Teaching Strategies Gold Plus.

Teacher to student ratio:

2:18 (lead teacher with Masters and Certification, asst. teacher with Bachelors). A School Aid jumps in when needed.

Relationship to K-8:

The goal is for students to attend Public Prep schools, but Pre-Prep is community-based so it is not automatic. Parents are given materials for Kindergarten applications.

Private/Socioeconomic status: Largely low-income students

Contact: Haifa Bautista (Program Director)

Pre-Prep is in their first year of operation with three classes of 18 4-year-olds. The Public Prep network is a high performing, rigorous charter school serving low-income students. Students are admitted to Pre-Prep on a first come first served basis and there is a small waitlist. Public Prep's Development team uses grants and private contributions to help fund the program.

Philosophy: "Children need to be children first." The Program Director believes that a child's development is most important, and that learning will flow smoother when social-emotional and physical development is met. She says that in Pre-K it is important to meet students where they are at and give them literacy and language experiences. "Language experiences allow children to express social-emotional behavior."- Program Director

Strengths of Academic Program:

- Routines are very important - when students leave/enter, they turn their name over on an attendance chart and when the teacher rings a gong, students put their hands up.
- They strongly believe in parent engagement. Parents are invited into the classroom in the morning. They also hold parent orientations during which they walk parents through their curriculum. During Open School Night (October) parents engage in the activities their children do at school. Homework consists of suggested activities for parents to complete with their child such as reading.
- Teachers get a lunch break when the school aid or Director

comes into their classroom to cover.

- After nap, teachers and students count the number of days they have been in school.
- There is a lot of student artwork on the walls.
- Overall, teachers are more prescriptive with their behavior interventions saying, things like, "you need to share."

Challenges

- The building wasn't done in time, so school did not start until October 1.
- It has been difficult for them to get facilities and services for the building (e.g.: plumbing). Ms. Bautista recommends being attached to another school that has services, as well as finding a dedicated team who is flexible and get that it's a startup.

Bottom Line: Pre-Prep is navigating offering Pre-K as part of a high-achieving charter network. It had been open just about two months when we visited, and there were aspects of the program and operations that still had to be ironed out.

Schedule:

8:00: Doors Open
- Breakfast, lunch and two snacks (morning and afternoon) are served during the day
- Morning Meeting
- Centers (students choose-dramatic play, blocks, etc.)
- Recess at a public playground (walk to and from)
- Nap time
- 3:00: Parents pick up children

Appendix 11: School Overview: Eliot-Pearson School (Tufts)

The Eliot-Pearson School at Tufts University has 80 students in Pre-K through 2nd grade. It is a lab school, with many doctoral and masters students teaching and observing students.

Curriculum: Emergent project-based – based on student interest.

Half Day

Assessment:

Checklists and teacher-created

Teacher to student ratio: 3:16

There is a head teacher and two graduate students

Relationship to K-5: There is an elementary school attached

Private/Socioeconomic status:

Mixed, charges tuition, largely upper middle class and many Tufts-affiliated

Contact: Hanna Gebretensae (Center Director)

Philosophy in their own words:

“Children learn best from self-initiated activity with concrete objects. They build on knowledge through related experiences. Through social interactions with peers, children learn to collaborate, cooperate and understand another point of view. Children who are active in their own learning process make sense of the world for themselves and construct their own ideas.”⁷⁴ The early elementary grades are also very project-based.

Strength of Academic Program:

- Many adults are in each classroom and actively pushing into play with language and literacy:
E.g.: Strong conversation between teacher with child during centers at ramps and blocks.
T: It looks like an “S” (letter)
C: I’m gonna make it not look like an “S”. Does it look like an “S: now?

T: I can see an “S”. How about you?

C: Yeah. Does it look like an “S” now?

T: I still see it.

C: Does it look like an “S” now?

T: What do you think? I’m asking you now.

C: It still looks like an “S.”

*In the morning of observation, we only saw classroom choice and did not witness the classroom meetings occur. There were also a number of behavioral issues (related to sharing and interacting with other students) that distracted from the play. This could be an anomaly of the day we visited.

Bottom Line:

There are many differences in terms of demographics of students served, day-length, and teaching staff that make it hard for Uncommon to take programmatic or operational lessons from Eliot-Pearson.

Schedule:

8:30-9:00 Arrival, Snack, Morning Centers
9:15-9:30 Check-in Meeting
9:30-10:20 Classroom choice/snack
10:20-10:25 Clean Up/Transition
10:25-10:50 Meeting/Circle (Movement and Dance, Fridays)
10:55-11:45 Outside Time
11:45-12:15 Hands/Lunch
12:15-12:30 Puzzles/Blocks
12:30 Dismissal

Appendix 12: One Page Overview: Yale Lab School (Calvin Hill Day Care)

Curriculum:

Emergent – based on student interest.

Assessment:

Checklist of mastery on 1-4 scale of CT early learning standards.

Teacher to student ratio:

4:18 (3 year olds)

5:20 (4 year olds)

Private/Socioeconomic

status:

Mixed, charges tuition, largely upper middle class and Yale-affiliated.

Contact:

Carla Horwitz (Director, Yale

The Calvin Hill Day Care Center (Yale Lab School) serves approximately 60 three to five year olds. Attached to Yale University, students and their families are mostly Yale affiliates. The vast majority of data is collected through observing students in their play. Students perform highly on Connecticut early learning standards.

Philosophy in their own words:

“All the research shows that children who have a high quality preschool experience do much better when they get to school... They’ve had opportunity to learn how to live in a group... The readiness for school is not so much whether they know their alphabet or how to count but that they can wait, they can share, they know how to get help from a teacher, they know how to play with other children, (and) they have been exposed to curriculum that supports their cognitive development” – Center Director

Strengths of Academic Program

- Strong teacher-student interactions with vocabulary

development:

Teacher 1: “The other day when we were outside, we saw a very special thing. What was that?”

Child 1: “A squirrel eating a pumpkin!”

Child 2: “That was yesterday!”

Teacher 1: “That was on Friday, which is in the past, like yesterday. But yesterday was Monday.”

- Explicit writing practice at the “writing center” during Activity Time: In groups of four, children practice writing words. They tell the teacher what word they want to write, and she writes it on a card for them to copy. They are all holding the markers correctly. They ask to write the words “friend,” “family,” and “once upon a time.” After some time of practicing writing individual words, the teacher gets their “books” out. These are books they have been writing about topics of their choice. One girl was writing her book about *Frozen*. She illustrated it and the teacher wrote the words she dictated.

Other things of note: Strong parent engagement strategies

- Teachers go on home visits before school starts
- Parents are invited into the classroom. They even recommend against carpooling so that the teachers can see the parents every day.
- “Parent pockets”: a hanging pocket folder that is stuffed with children’s work, announcements.

Bottom Line: The Center’s teachers were very strong at developing vocabulary and their community is quite clearly strong. Children were joyful and engaged in the work. However, the population is different than that of Uncommon.

Schedule:

8:00-9:30: Free Play/Breakfast arrive (blocks, sand/water, manipulatives, dramatic play).

9:40 -10: Group Story Time

10:15-11:15: Outdoor play (there is dramatic play outside, a sandbox, etc.).

11:15-11:30: Meeting (they talk about something and focus on problem-solving).

11:30-12:00: Activity Time (often in small groups)

12:00-12:15: Music (Singing)

12:15-12:45: Lunch (They eat lunch with the same teacher and students everyday)

12:45-1:15: Nap Room stories

1:15-3:00: Nap

3:00-3:15: Wake up/stories and puzzles

Appendix 13: School Overview: DC PREP

Curriculum: internally-developed
Assessments: Common internally-developed assessment that rates students 1-4 on mastery of specific skills

Teacher to student ratio:2:20 – teachers are equal co-teachers

Relationship to K-5: In the same building

Private/Socioeconomic status:
Title 1 school, serves predominantly low-income African American students

Contact: Maura Ross (Assistant Principal) and Jamie Hernandez (Early Childhood Instructional Coordinator)

DC PREP serves 80 students in their Pre-K 4 and 72 in their Pre-K 3 program. DC PREP is a high-performing charter school network serving low-income, predominantly African American students.

Philosophy and goals in their own words:

“Our goal is that students leave us ...reading at least Step 1. Many enter [Kindergarten] reading at Step 2 & Step 3. They are counting. They are doing simple addition through story problems up to five. They have word solving strategies, they are using words, sounds and pictures, they are stretching out words. They know all of the letters and all of the sounds. They know some digraphs and blends. There’s also the character piece — they are going to be a good friend, they are going to use their words.” – Early Childhood Instructional Coordinator

Strengths of Academic Program:

- Whole group time is kept to a minimum – Read Aloud is done in two small groups often of the same book but working on different skills based on individual student need.
- Lots of motion – students were dancing to the alphabet with hand and body signals for letters
- Teachers pull students during centers for targeted practice in specific skills.

Lessons Learned in Recent Reorganization:

- DC Prep recently got rid of its color card behavior management system instead opting for “class shines” when the majority of the class is meeting behavioral expectations. They found that individual color cards were not successful because students were focused on the color, not the behavior change.
- DC Prep recently wrote its own curriculum aligned with the DC Early Learning Standards after being disappointed with the OWL Curriculum and Big Math for Little Kids.
- The transition to their more regimented Kindergarten is “very hard” because “it’s really a big difference behaviorally and academically”
- “The amount of planning and non-instructional time... That’s the plight of the early childhood teacher here.” The only planning time is during nap. “I recently worked as a teacher because we had one out for 5 weeks, and meeting the expectations we are setting is hard. The amount of time, the amount of energy, and how much the kids really need you [is the biggest challenge].”- Director of Early Childhood Instruction

Bottom Line: DC Prep has a highly regimented Pre-K but has recently made curricular and programmatic choices to become more developmentally appropriate.

Schedule:

7:30 Breakfast
8:00 Morning Meeting
8:25 Read Aloud
8:40 Writing
9:05 Snack
9:15 Specials
9:45 Wordplay
10:05 Shared Reading
10:15 Recess
10:40 Centers Meeting
10:50 Centers and ELA Small Group
11:50 Lunch
12:15 Nap (1.5 hours)
1:45 Snack
1:55 Recess
2:20 Math Whole Group
2:40 Centers and Math Small Group
3:45 Closing Meeting

Appendix 14: School Overview: KIPP Grow

Curriculum: They are the only KIPP Pre-K to use “Tools of the Mind.” They switched last year (from an internally developed curriculum)

Assessments: TEMA (citywide math assessment), PPVT (receptive language assessment), EVT (expressive language assessment), DECA (for social-emotional data), informal data collection through “Tools of the Mind” (track students’ writing development), school/teacher created informal data trackers

Teacher to student ratio:
2:21 – Pre-K 4 (one is a Capital Teaching Resident on a one-year residency)

Relationship to K-5: In the same building

Contact: Stacie Kossoy (Principal) and Lauren Ellis (Vice Principal)

KIPP Grow is in its fifth year of operation. It serves Pre-K 3, Pre-K 4, and Kindergarten students. KIPP Grow recruits students through word-of-mouth, city-wide fairs and canvassing with flyers. KIPP Pre-K is both publically and privately funded. Philanthropists contributed to the school’s transition to the “Tools of the Mind” curriculum.

Philosophy:

“We want to make sure students are entering elementary school with no deficits.... [that] there is no achievement gap between our students entering first grade and their suburban counterparts... We want them to be academically prepared but we also want to focus on the social-emotional aspect as well... We want to make sure that they have the social and communication skills they need as well as the vocabulary” – Vice Principal.

Strengths of Program:

- Parent engagement is strong: monthly two-hour Saturday school for students and families; monthly meetings for KIPP Parent Organization; biweekly parenting sessions held by school psychologist; organized days for parent volunteering; lending library of books for families
- Summer school is required for Pre-K 4 students.
- Behavior management and routines are strongly in place:
 - Numbers on the floor show students where to line up
 - While walking to the carpet, students whisper, “tip, toe, tip, toe”
 - During large group literacy, when students hear music, they erase their board and walk to the carpet
 - Students sit still on the carpet (they sometimes call out but are sometimes instructed to raise their hand)
 - Teachers explicitly narrate how to say “Oh well, maybe next time” or “not getting upset because it’s a little deal”
 - Students who are misbehaving after corrections are told to take a “break.” While taking a break, a child flips over a one minute hourglass or three minute hour glass
- There are bathrooms in every classroom as well as some whole-class bathroom trips.
 - When a student goes in, he/she velcros a “stop sign” to the door so no one else enters
- The classroom environment supports learning: Furniture is labeled “Door,” “Closet,” etc.; there is a classroom job chart; the daily schedule is posted; each child has their own cubby labeled with their name and photo; past months calendars (with days crossed off) are posted; bulletin boards outside classrooms show each child’s photo next to their work

Explicit Math and Literacy Instruction:

- To track attendance, when students arrive they put their name on one side of the mystery number/word chart to show what number/word they think it is.
- During the Morning Meeting the class adds to the “weather graph” which shows the number of rainy, cloudy, snowy, or sunny days.
- During small groups there are seven students with each teacher, and one group on the computer with headphones. Each rotation is 12-15 minutes.
 - One teacher works on math. Each student gets a card, and calls out one-by-one: “I have a brown hexagon, who has a yellow square?” or “I have a six, who has a three?”
 - The other group works on literacy with a Read Aloud.
 - During the computer rotations students use a Waterford Literacy program.
- During large group literacy, the teacher models how to write a letter. Students then use whiteboards to practice the letter/chant (e.g.: they say “down, bump, bump” while writing “m”)
- Explicit vocabulary development. Students discuss “what a ‘bagger’” at the store does after having gone on a field trip to the grocery store. The teacher then brings out a picture of a bagger for further discussion of this person’s role and how it’s different from other jobs at the store.

Curriculum and “Tools of the Mind”:

- They switched to Tools of the Mind last year. “(If) this play-based learning is what people are paying big money in private schools for... and that’s considered the best education for kids, why are we not providing that for our kids for free?”
- They have tried to show 100% fidelity to Tools.
- They choose Tools of the Mind” because it explicitly teaches self-regulation and grit. Additionally, the academics are “developmentally appropriate.”
- They have a Tools of the Mind trainer.
- Before centers, a teacher models how to write a “play plan,” then students choose their centers. Before going to his or her center, each student writes a “play plan” which is reviewed by a teacher. Play plans say “I am going to....” with an accompanying picture
- Student dance to “Mr. Sticks” that allows motion during the song and shows them a position to get in when it finishes. This is practicing self-regulation and gross motor development.

Lessons Learned and Recommendations:

- Behavior protocol is very important. The school has had a lot of PD on the time out protocol system. Teachers can adopt their own management system if it is consistent.
- Some teachers used “Super Sticks”: teacher says the behavior expectations at the beginning of each activity. At the end, they spend one minute giving a stick to each student who met expectations. If students meet the daily goal, they can get a high-five at the end of the day, go to the “class store,” or even just tell their parents. This has been motivating because it is personal and discrete.

Pre-K 4 Schedule:
 7:45: Breakfast (30 min)
 Opening Group (15 min)
 Specials (55 min)
 Large Group Literacy (25 min)
 Snack/Movement (20 min)
 Make Believe Play (1 hour, 10 min)
 Lunch (30 min)
 Nap (1 hour, 30 min)
 Snack/Movement (15 min)
 Recess (45 min)
 Small Group (50 min)
 Free Choice Centers (35 min)
 Closing Group (25 min)
 4:05: Dismissal

Bottom Line: KIPP Grow is a strong resource for learning how a high-performing charter has adapted their programming for young learners.

Appendix 15: School Overview: Powell Elementary School

Curriculum: Tools of the Mind with Reggio infusion

Assessment: GOLD

Teacher to student ratio: 2:16, 1 lead teacher, 1 assistant (with half-time SPED push in)

Relationship to K-5: Same building

Private/Socioeconomic status: Title 1 school, serves mostly low-income English language learners

Contact: Krystal English (PK-3 Teacher)

Powell serves students PK-3 through 5th grade in a low-income, ELL community. As a DC Public School, it uses “Tools of the Mind” and the GOLD tracking system.

Philosophy:

“I think most importantly, [young children] should be learning how to interact with others in community of peers... So how to talk to each other, how to interact, how to ask for things they want, [and] how to handle disappointment which is a life skill, but is really hard for them. That is first and foremost. They should have multiple opportunities to practice language throughout the day.” – Pre-K Teacher

Strengths of Academic Program:

- Teachers go on home visits before school starts. There, teacher asks parents what their child afraid of, what helps calm them down, and what the parents’ hopes and dreams are for their child. Teachers also write and put pictures in each child’s home journal every week.
- The students are responsible for a lot of self- and classroom-care – students learn to brush their teeth, put on their own coats, clean up extensively, and open their own containers at breakfast.
- The centers change with student experiences. Having gone on a field trip to Cactus Cantina, students created a tortilla maker. Conversations between students and teacher included recalling details of the field trip. Students have a clothespin that shows their center, and stay there.
- Strong infusion of language development:
 - 1) Higher-tier language and vocabulary development. E.g.: While students put on coats, a teacher says, “You look bundled, Marco.”
 - 2) Probing for greater child specificity. e.g.: While students decide what Center to go to, “I know you want to go to McDonald’s (a center), but what do you want to do there?”
 - 3) Students direct conversations, e.g.: Teacher says, “Tell me more about that.”

Advice:

- The biggest challenge of opening Pre-K in an elementary school is leadership: “Our principal is a great leader but she doesn’t have the experience of teaching early childhood and teaching early childhood is very different than teaching third grade.”
- Build foundational skills first: “You cannot read and write if you don’t have self-regulation to sit down and read and persistence to persevere through sounding out a word you don’t know. It’s really important for us to teach those skills.”
- Use lunchtime to encourage discourse and develop conversation skills.

Bottom Line: Ms. English is a gifted early childhood educator and the level of academic inquiry in her classroom is high. She is a strong resource for best practices in a low-income setting.

Schedule:

8:45 Breakfast
Free choice
Morning Meeting
Centers
Recess
Specials
Buddy reading
Small groups
Lunch
Teeth brush
Nap
Free choice
Story time
Recess
Snack
3:30 Dismissal

Appendix 16: School Overview: UDC Lab School

Curriculum: Reggio

Assessments: “Get it, Got it, Go”

Alphabet Knowledge Assessment, Vocabulary Assessment, Alliteration/Rhyming Assessment, and Math; Narrative portfolio of student work; Habits of the Mind to measure disposition/approach to learning; they also take a social inventory of friends

Teacher to student ratio: 3:15 but

currently 3:11. 1 lead teacher, 1 assistant, and 1 resident. 1 teacher in each room is a man of color.

Private/Socioeconomic status: 50% are Head Start eligible (goal is 66%), the rest pay tuition.

Contact: Larrisa Wilkinson
(Director/Lead Teacher)

UDC serves students age 2.5 to 5 in mixed age classroom.

Philosophy:

Pre-K should include hands-on investigation and develop students’ thinking abilities, and allow for open-ended exploration, creativity, and innovation.

Strengths of Academic Program:

- Strong parent engagement: There is a family lending library (and a 100 books/year challenge). Daily journals and a Friday newsletter are posted and emailed to parents
- Lunchtime is important for discourse. Students pick the topics they talk about.
- The environment supports learning. For example, student-made posters show colors, numbers and letters, materials are sorted by color, and the blocks center has posters of cityscapes to inspire students. There are a lot of objects from nature: rocks, pinecones, plants, and a fish tank. There are large windows and labeled pictures of animals.

- Rules: “be respectful to ourselves, our friends, and our environment.”

At Morning Meeting, students read a morning message and clap to a pattern, they talk about the way a leaf falls and make a tally chart. They count tallies and discuss “greatest” and “least.”

- During morning meeting students sit quietly on the rug. During “share time,” the student sharing says, “Any questions or comments?” and calls on other students. He then thanks them for their question.
- Those not called on say, “Oh well, maybe tomorrow.”
- 15 minutes was packed with counting, repetition, gross-motor skill development, science concepts, literacy, listening, speaking, welcoming students, and setting the tone for the day.

Choice Time/Play:

- At the beginning of Centers, teacher asks, “Who would like to do the art station?” Centers include: writing, art, blocks, exploration, library, cooking, and computers. Children move between centers by moving their name/photo to another pocket.
- There is a teacher at each center (with 3-4 students).
- During Choice Time, one teacher pulls small groups. At the writing, the teacher asks a child to tell the story of the picture they drew.

Schedule:

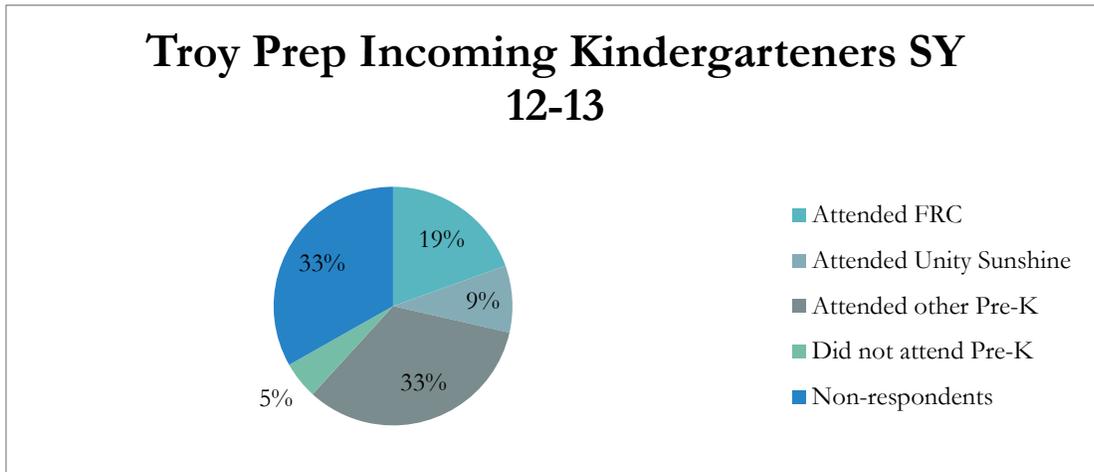
8:00 Arrival
8:00-9:00: Breakfast
(students use word boxes, teachers do 1-on-1 literacy work)
9:00 Morning Meeting
Read Aloud
Choice Time (teachers pull small groups)
Outside (1 hour)
Lunch
Naptime
Snack
Read Aloud
Outside
3:45-6: Students leave;
lead teacher is off at 4

Bottom Line: UDC is a progressive school that develops students’ literacy skills through interactive experiences. Their 15-minute morning meeting is particular strong.

Appendix 17: Additional Uncommon Data

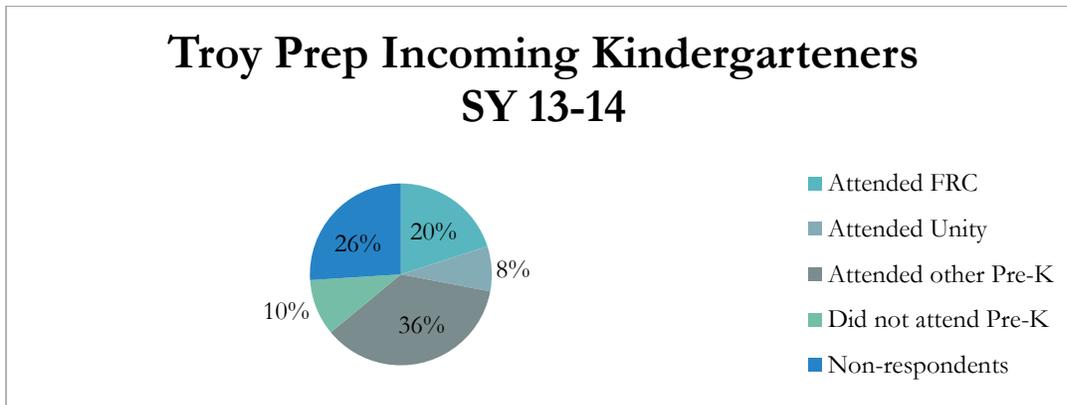
2012-2013 TPES Pre-K Location Data:

In the 2012-13 school year, there was no data for 33% of students, who we have considered non-respondents. However, we know that 61% of incoming Kindergartners attended some Pre-K and 5% did not attend Pre-K. Of the Pre-Ks that students attended, FRC and Unity Sunshine were the most popular. 19% of incoming Kindergartners attended FRC and 9% of incoming Kindergartners attended Unity Sunshine.



2013-2014 TPES Pre-K Location Data:

In the 2013-14 school year, there was no data on 26% of students. However, we know that 64% of incoming Kindergartners attended some Pre-K, and 10% did not attend Pre-K. Again, FRC and Unity Sunshine were the most popular Pre-Ks attended by TPES students. 20% of incoming Kindergartners attended FRC and 8% attended Unity Sunshine.



Regression for Attendance and STEP Score Calculations:

We used the following regression:

$$\text{ENDSCORE}_{ij} = \beta_0 + \beta_1 \text{ABSENCE}_{ij} + \beta_2 \text{START}_{ij} + \beta_3 \text{FEMALE}_{ij} + \beta_4 \text{BLACK}_{ij} + \beta_5 \text{HISPANIC}_{ij} + \gamma$$

Where ENDScore is end of year STEP Score

ABSENCE is the number of absences a student accumulated by the end of the school year,

START is beginning of year STEP Score

FEMALE is a dummy for gender

BLACK, HISPANIC are dummies for race

And γ is classroom fixed effects.

i = individual student

j = school

Observations (525)	
Control Group Mean:	4.97
Absence	-.02 (.001)***
Start	.47 (.003)***
Female	.27 (.008)***
Black	-.32 (.042)***
Hispanic	-.37 (.161)**

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