Chapter One

Children at the Center

In 2014, Boston's new mayor, Marty Walsh, sent a letter to the city's four thousand kindergarteners:

> My name is Marty Walsh, and I am the mayor of Boston. You live in Boston and are some of its youngest and most important residents. As Bostonians, you have the right to share your opinions about the city.
>
> I hear you are learning about structures as part of the construction unit. I have a question for you. *"What suggestions do you have about construction in our city to make Boston fairer and a more interesting place for children?"*
>
> I know you know a lot about Boston. You know about buildings you see and your houses and your schools. It is important that constructions such as parks, buildings and roads be fair and interesting.
>
> This is a big question, so take your time in answering it. Talk to your classmates, your teacher and your family. Do research to get ideas. Write your ideas and please make a model to help me understand your ideas better.
>
> I look forward to learning about your ideas and seeing your model.

This unusual invitation was not an idle request, nor was it divorced from the work and learning the children were doing every day. It has become an annual tradition.

Walsh's message to Boston's young children and their families is: *You are valued citizens of this community. We take you and your ideas seriously, and we believe you are capable of great things.* That message is at the heart of the Boston Public Schools' (BPS) early childhood programs, which have increasingly been built and continuously improved based on a set of nine core principles that reflect both democratic values and current scientific thinking about how children learn and develop (see "Boston Public Schools Department of Early Childhood Core Principles").

More than a decade ago, Boston made a daring bet—that it could build and sustain a high-quality, whole-child focused, intellectually engaging early education program that would significantly lower the city's persistent achievement gaps by locating that program within its public school system. That bet is clearly paying off. Approximately 65 percent of the 4,300 four-year-olds who will enter Boston's public kindergartens in 2018 have been educated in public school prekindergarten classrooms.[1] Another 250 are attending free, eight-hour, year-round community-based programs that follow the BPS curriculum, receive money from the school department to enhance teachers' salaries, support both teachers and directors with training and coaching, and offer comprehensive services to children and their families. Following the more than 2,000 children in BPS prekindergarten (K1) classrooms in the 2008–2009 school year, researchers documented gains in vocabulary, preliteracy skills, and early mathematics that were the "largest found to date in evaluations of large-scale public pre-kindergarten programs."[2]

Boston's Public Schools and community-based early learning programs reflect confidence in the curiosity, creativity, and capability of its youngest learners—and of their teachers. They place children at the center, offering a rich and engaging curriculum that allows time for exploration, play, research, and conversations that lead to broader connections and deeper understandings.

At their best, the classrooms are filled with joyful, purposeful activity. With instructional and curricular support, the children work together in fluid groups, learning from each other and pushing and building on each other's ideas. Mayor Walsh's trust and confidence is borne out in the ways they interact with their teachers and with each other, and in the ways in which their teachers interact with each other, families, and administrators.

Boston Public Schools Department of Early Childhood Core Principles

1. Schools must promote our democratic society and support children's and teachers' sense of citizenship though multiple connections to families and community.
2. Young children are curious, active learners who are capable of high-level thinking processes, empathy, and taking multiple perspectives.
3. Strong relationships are at the center of powerful learning experiences.
4. Early learning programs must support children's physical, intellectual, language, and social-emotional development, along with their curiosity, creativity, persistence at challenging tasks, and academic learning.
5. Flexible, hands-on curricula that align with prior and future experiences foster mastery of learning standards and achievement of twenty-first-century goals.[3]
6. Basic literacies, knowledge, and higher-level skills can be furthered through pretend play, projects, extended conversation, and thoughtful instruction.
7. Because young children learn and develop at different rates and exhibit a wide range of interests, strengths, and learning styles, teachers need the time, flexibility, information, and resources to tailor learning experiences and engage all children, including dual language learners and children with special needs, as full participants in the classroom community.
8. The adult and child learning environment are connected and mirror one another through respectful processes of inquiry and differentiation.
9. Varied assessments provide data to inform instruction and drive change. Teachers and families participate along with administrators and specialists in interpreting findings, evaluating their implications, and shaping resultant decisions.

Teachers are learning along with the children—discovering and building on each child's capabilities, interests, and questions as they work to "make learning visible" to the children, their families, and within the wider community.[4] Coaches and specialists support teachers in this quest, listening to ideas and dilemmas, sharing suggestions when requested, and collaborating in examining and interpreting data to see where programs, lessons, and pedagogy might be adapted or improved.

This vision has been a decade in the making, and infuses the work of the Boston Public Schools Department of Early Childhood (DEC). Its implementation has shaped an increasing percentage of Boston's early education settings—especially the growing number that are housed within its public schools. And as the program is shared, the DEC is transforming early education programs in Massachusetts and beyond.

In the DEC's curriculum, many conventional dichotomies—such as play versus academic rigor, teacher-led instruction versus learner-driven exploration, inferential learning versus direct instruction, breadth versus depth, and a focus on head (intellectual concepts and skills) versus heart (social-emotional development and engagement of passion) become synergies rather than choices or compromises. Throughout this book, you'll see examples of teachers, coaches, and administrators wrestling with these balances and affirming integrative possibilities. You'll also see how a content-rich and intellectually challenging curriculum offers platforms for engaging and productive play, and how questions and discoveries that arise from play drive academic learning. You'll see teachers joining learners' projects and offering instructional supports—both direct and inferential—that build knowledge and skill or suggest new approaches. You'll see the choice, adaptation, and redesign of curricula so that children, teachers, and families can make wide-ranging connections and explore them in depth. And you'll see how engaging empathy, passion, kindness, and friendship foster efficient intellectual and academic learning, while engagement of reflective and analytic thinking enhances empathy, self-understanding, and prosocial behavior.

You'll also learn how a curriculum and instructional program that begins with the assumption that young children are capable of higher-order thinking, empathy, and taking multiple perspectives can build both sequentially acquired "basic skills" and enduring foundations for skilled reading and mathematical understanding. (See the appendix for a discussion of the rigorous research that documents these impacts and continues to shape key program decisions.)

Walking into many of Boston's preK and kindergarten classroom, you may think you are in an elite private school or at a university lab school. You might see four- and five-year-olds tackling complex ideas and thinking in sophisticated ways: observing closely, analyzing, theorizing, representing,

looking again, comparing, debating, citing evidence, considering others' perspectives, synthesizing, and coming to consensus. You may see them working both independently and collaboratively, asking each other for help, pausing in their play to include or help another child. You might witness extended play episodes where children construct and act out sophisticated scenarios with convincing role-appropriate language and tone. You'll likely notice teachers recording children's dictated words, conversations, and learning processes. And you'll see children engaged in artwork, storytelling, reading and writing, and mathematical reasoning and problem solving, often at a surprisingly complex level. Yet these classes are not designed for an elite group, but instead for a typical urban demographic: multiple languages, a diversity of backgrounds, and many children with identified special needs, with most of the students eligible for free or reduced-price breakfast and lunch programs.

Boston's early childhood programs, like many across North America, have been influenced by the pedagogy and practice of the renowned municipal preschools in Reggio Emilia, Italy. Articulated by Loris Malaguzzi, the Reggio preschools' leader and founder, the Reggio philosophy challenges educators to see children as competent learners in the context of their peer group. This view of the child concurs with Piagetian perspectives that see early childhood as a unique and foundational period of development with distinctive learning styles, but differs from their view of development as "largely internal and occurring in stages."[5] Like Lev Vygotsky, Malaguzzi believed that social learning precedes and supports cognitive development.[6] He emphasized the role of an environment where teachers and children co-create learning.

In Reggio-influenced classrooms, teachers intentionally arrange learning materials to engage children and probe as well as challenge their thinking. Children engage with each other and their teachers as they investigate the materials and create art that represents their ideas. Malaguzzi saw children as competent and creative thinkers who represent and explore their developing knowledge in "a hundred languages" of movement, play, visual arts, storytelling, music, construction, hands-on experimentation, and discussion in collaborative as well as individual endeavors. Interpreting these ideas in Boston, BPS

teachers not only "listen to" and support these languages, they engage with the children, as well as with families and colleagues, in more fully understanding the communications, reflecting on the learning, and deciding where to go next.

The brief stories and classroom-visit chapters presented throughout this book illustrate this dynamic process as it occurs in Boston classrooms and in the parallel and supporting worlds of coaching, administration, and family engagement. Teachers go beyond surface learning, beyond the casual "good job," and push to develop deep understanding of children's thinking, questions, and curiosity.[7] Likewise, coaches and administrators join teachers in probing their thinking, practice, and ongoing learning, using formative and summative data—along with documentation that makes children's learning and learning processes visible—to ground their reflections, deliberations, and decisions. Unless otherwise noted, these exemplars are transcriptions of actual events, with children's names and identifying details changed to protect their privacy.

Our classroom visits offer evidence of how the child is situated as both capable and connected; how networks of relationships weave together opportunities for belonging and participation. They portray some of the ways in which Boston applies Malaguzzi's ideas, integrating them with related ideas from progressive educators, scientific research, and recommendations of leading professional organizations such as the National Association of the Education of Young Children (NAEYC) as well as with state and national education standards, local expectations, and the learning opportunities that its families, communities, and physical environments offer.

Picture yourself as the child to whom the mayor of your city makes an authentic appeal for help. In asking for your class's ideas and expertise and the results of your research, adults assume that you are a competent individual learner, a member of a classroom community, a family, a school, and the larger community—and that you are able to find those answers. These are sizeable expectations for small children, and for those who teach and care for them or make decisions that affect their welfare. They reflect a view of the child as eager to learn: rich with wonder and knowledge, strong, capable, and resilient.[8] In this view, the child possesses great potential, which it is the teacher's privilege to perceive and empower.

But what of children who don't exhibit these characteristics, or whose development or abilities may have been compromised by illness, trauma, or other adversities and who may face greater learning or behavioral challenges? In Boston, as in Reggio Emilia, such children are deemed to have "special rights" rather than "special needs."[9] Like all children, children facing challenges are entitled to good care and quality teaching because of who they are, not because of what they need or what they can or can't do.[10] They are valued members of their communities—friends and classmates whose unique personalities, strengths, and interests enrich learning for others. As with all children, the teachers' role in fostering friendships, supportive relationships, and social-emotional growth is as important as their role in fostering academic learning. At the same time, children who need more time to learn, adapted modes of instruction, therapeutic supports that facilitate their full participation in a group project, or help from other children have the right to these accommodations.

All children are seen to benefit from the inclusion of children with special rights. They learn early that individuals differ in learning pace and style and that working, playing, and learning together is natural.[11] Learning projects are sufficiently open-ended to engage all children, and for all children to enjoy and learn from their own and each other's engagement. Children who learn better in substantially separate groups have the same rights to respect, care, and kindness—and to joyful, developmentally appropriate learning experiences that facilitate their development in all domains.

Boston might be expected to lead the way in early education. It was the site of the first English-language kindergarten in the United States, founded in 1860 by Elizabeth Peabody, a pioneering teacher who became a tireless advocate for the kindergarten movement.[12] Boston is the home of Wheelock College (now part of Boston University), one of a handful of early education schools that have shaped the field; other historic leaders, including Lesley University and Tufts University's Eliot-Pearson School, are in neighboring cities. Boston is also the capital of a state that has made relatively large investments in programs for young children and whose students have repeatedly scored at or near the top in both reading and math on the National Assessment of Educational Progress (NAEP).[13] Yet, like many urban systems, Boston continues

to face challenges of residential segregation, large numbers of students with high needs, aging infrastructure, and policies and systems designed for an earlier era and for older children.

The process of building an early education program, continuously improving quality, scaling up and building institutional supports for successful efforts, addressing the diverse needs of children and their families, and keeping all stakeholders engaged has been neither easy nor straightforward. Again and again, the small team that took on these challenges relied on their core values that put children at the center and on their initial but continually evolving strategies of creating developmentally appropriate settings; offering a high-quality curriculum; building teachers' skills through professional development and coaching; building principals' skills as early childhood leaders; engaging families; and using data, documentation, and collaborative interpretation and response to drive ongoing improvement.

Boston's early childhood programs remain a work in progress. Curricula, materials, and teaching tools create learning possibilities for children, but it is the messy, deliberate, demanding, and often exhilarating daily work of supporting children's learning that turns possibilities into realities. Similarly, getting teachers the supports they need—not just curricula, teaching tools, and educational materials, but also appropriate environments, data systems, professional development, coaching, wraparound and family engagement efforts, and administrative policies—involves negotiating multiple relationships and systems.

The United States has many excellent preK programs that are grounded in the science of early childhood development and learning; some school-based preK programs that have achieved significant academic results; and a few examples of child-centered, "developmentally appropriate," play-based programs that have been incorporated into urban public school systems. Other cities have developed public school–based programs for three- and four-year-olds. In fact, nearly every school district in the country offers (or funds) public education for all three-, four-, and five-year-olds with identified special needs—in self-contained classrooms or in classrooms that include peers whose development falls within the typical range, as appropriate. But Boston may be unique in

building a high-quality, play-based, intellectually engaging, and demonstrably effective program that is reaching upward, downward, and outward to create meaningful and sustained change in the ways that the school system and its community and parent partners engage and educate *all* of their young children.

Many school districts have built programs for four-year-olds in the same way they added kindergarten—from the top down. For instance:

- Oklahoma introduced universal, school-based, academically oriented preK by moving school down a year. A study in the Tulsa public schools demonstrated that all income subgroups showed significantly strong academic gains when compared with a control group who remained in community care because they had missed the age cut-off by a few days. Socioeconomic gaps narrowed, and dual language learners showed particularly strong gains.[14]
- Montgomery County, Maryland, built on Head Start programs already operated by the schools, strengthening their academic components and expanding them to all four-year-olds in neighborhoods with concentrated high needs, in a successful ten-year attempt to substantially narrow gaps in high school completion and college readiness between rich and poor areas of the county.[15]

New Jersey school districts with concentrations of children from low-income families added three-year-old and preK programs to fulfill a court-ordered mandate. The state provided both oversight and supports, including financing, professional development and coaching, and evaluation. Community-based childcare, preschool, and Head Start programs were brought under their school districts' umbrellas, but retained their identities. When implementation began, only 15 percent of programs (both public and private) were of "Good to Excellent" quality, as measured by the widely used Early Childhood Environmental Rating Scale (ECERS-R). Eight years later, nearly two-thirds scored in the "Good to Excellent" range and none were rated as "Poor." A longitudinal study showed gains through the fifth grade (when compared with children of similar background who had not participated), especially for children who began at age three.[16]

There are also a number of early childhood programs that have proven effective at scale—many espousing principles similar to those that have animated Boston's effort. These include:

- Reggio Emilia, Italy, established its renowned early childhood programs after World War II, as a way to rebuild the community. The programs have continued to grow and improve and have received worldwide acclaim. But until relatively recently, they have had only limited connections with the K–12 schools that their graduates attend.
- HighScope, a Michigan-based organization that built the renowned Perry Preschool Project and tracked its graduates for forty years, has disseminated its curriculum, professional development offerings, and child assessment measures both nationally and internationally.[17] Michigan's state-funded Great Start Readiness Program, for children from low-income backgrounds, is built on the Perry Preschool model. In a matched comparison study with a quasi-experimental design, HighScope found that its graduates maintained a significant edge not only at kindergarten entry, but in second grade, fourth grade, and middle school, and in their rate of high school graduation. Michigan significantly expanded the program in 2012; assessments have consistently shown that both original and expansion sites have maintained the quality—and pedagogy—that led to its documented success.[18]
- Head Start, our nation's signature early childhood program, was informed by the Perry Preschool model and has been shaped by the efforts of families, teachers, researchers, and varied administrative teams. The program has developed over the years, sometimes with inconsistent quality or variable or seemingly not sustained outcomes. Recent efforts to strengthen systemic quality have improved individual programs and led to favorable and sustained child outcomes.[19]
- Educare provides enhanced facilities and staffing for children from pre-birth to age five and their families in Early Head Start and Head Start programs. The Educare model relies on data utilization, embedded professional development, high-quality teaching practices, and intensive family engagement. Strong national and site-based leadership continu-

ously supports these practices and also forges local partnerships with other family-facing organizations. A series of site-based and programwide studies have documented the power of this model to foster ongoing family engagement and to prevent achievement gaps at school entry and through grade 4.[20]

Clearly BPS is not alone in viewing young children as eager, physically active, capable learners whose innate curiosity drives their efforts to understand their world and their place within it. Neither is it alone in building programs that respect young children's developmental agendas and their individual and collective proclivities. The DEC and its partners are also not alone in recognizing that the curiosity and creativity that seem to come naturally to young children are as important to cultivate as literacy and math skills, or in intentionally building the warm relationships and mutually engaging interactions that are key to high-quality early education programs. And they are not unique in seeing play-based education as the most effective route to academic rigor for young children and in using academic content to enrich play. But Boston has been a pioneer in building a program grounded in these beliefs, values, and practices within an existing public school system.

Today, Boston's preK programs attract visitors from throughout the nation and around the world.[21] Their reputation for results is spreading, backed by both outside research and the classroom quality and child outcome data that the system regularly collects to inform instruction and policy. In 2016, the *Atlantic* published an article, "What Boston's Preschools Get Right," that described Boston's as "one of the best free, public school programs in the country," touting the program as "student-centered, learning-focused, and developmentally appropriate." It featured Mary Bolt, a ten-year veteran of Boston's preschool program, who described the program this way: "The curriculum is so fun, they don't realize it's rigorous. Kids tell parents on Saturday that they want to go to school. If we were drilling them and doing worksheets, they wouldn't be saying that.[22]

The core principles that drive BPS programs for four-year-olds (and some three- and five-year-olds as well) have not only transformed virtually all of its kindergarten classrooms, but are percolating upward to first and second

grade, and outward and downward to influence community-based early learning programs and "Play to Learn" groups for toddlers and parents. Instead of building an education program from the top down, as many school systems do, Boston is rebuilding its from the bottom up.

The following chapters provide an inside look into Boston's public school early education programs and how they came to be. You will meet key members of the DEC, who have worked along with outside authors to tell their story and make their learning visible.

As tour guides, we will describe not only what Boston did, but how. We will explain choices, early results, and evidence of success—but we'll also reveal the internal challenges, barriers, and occasional changes of course. We tell the story of how a small team built a multifaceted early childhood program that began to drive change within the schools and community. This essentially chronological story will be punctuated by vignettes that show the program in action. We'll eavesdrop in classrooms, witness family and community events, attend a DEC staff meeting, and talk with teachers, coaches, administrators, and researchers as they reflect on their work. As in the historical chapters, we point out the highlights, looking through multiple lenses of child development, educational theory, research, and policy. We provide context and explanation as needed, and will hopefully address the questions that you may be asking. We'll delve deeply into practices that have been key to Boston's success, including strong curricula, a push for schools to achieve NAEYC accreditation, and professional development. An appendix describes how data and research have been used to inform resource allocation and to drive systemic change.

The principles that have guided the journey repeatedly manifest themselves in the DEC's decisions, directions, and culture, as well as in the teaching and coaching practices you'll see on your visits. To aid you in following the story, we call them out in the endnotes and occasionally within the text. So let's begin—with an extended visit to a classroom that showcases the DEC's core principles in action.