Scaling playful learning:
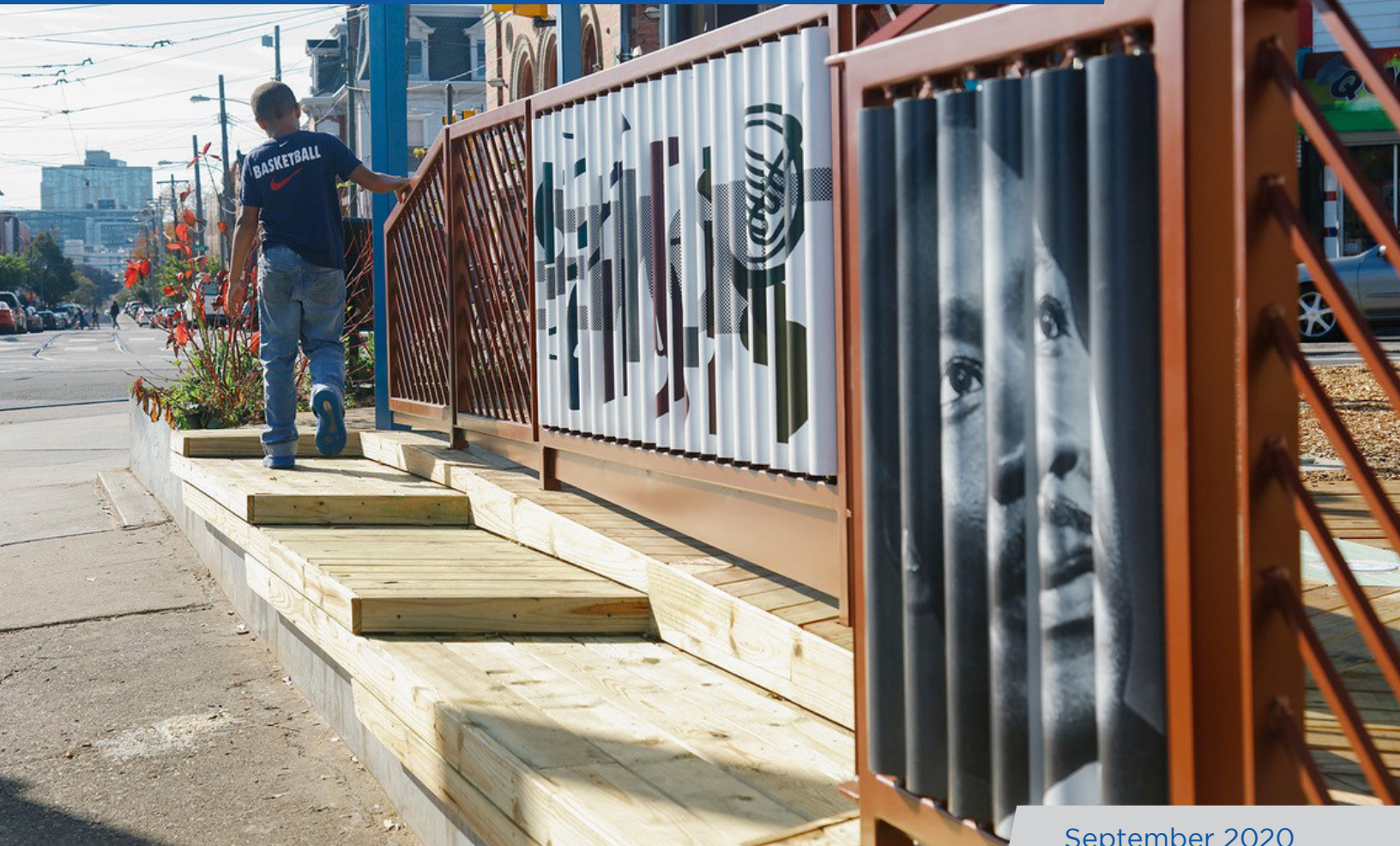# How cities can reimagine public spaces to support children and families

September 2020

BROOKINGS

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Contents

Introduction

The COVID-19 pandemic has affected almost every aspect of daily life, but presents an added burden on children and families. Closures of schools and child care facilities have had dramatic impacts on the lives of children and put a strain on caregivers to meet children's developmental needs at home. This in combination with economic instability and social isolation is a recipe for toxic stress, which can have long-term negative effects on brain development and health. These cascading effects of the pandemic are widespread, but are disproportionately affecting families living in communities challenged by decades of discrimination and disinvestment—and are very likely to widen already existing educational equity gaps in worrisome ways.

Prior to the onset of the pandemic, children typically spent only about 20 percent of their waking hours in the classroom. Even so, policymakers and educational leaders have invested most of their time and resources on top-down reforms to improve access to and quality of formal learning spaces (e.g., classroom instruction). If such efforts—though vital—were too narrow previously, COVID-19 makes it even more apparent that children need a wider range of enriching learning opportunities, including in the places they go every day. This is particularly true for children in under-resourced communities, who may have limited access to music lessons, summer camps, children's museums, and other educational activities and environments outside of school. Given what we know about the importance of healthy and positive child-caregiver interactions for child development and the long-term effects of quality early learning experiences on economic mobility, this puts these children at a significant disadvantage relative to their higher income peers.

As cities and regions look to "build back better" in the wake of COVID-19, it is imperative that they consider a far more holistic approach to child development that addresses the inequities in our current systems. This means supporting new and creative ways to foster and sustain learning beyond the classroom, including in public spaces where children spend time waiting—like bus stops or laundromats—or go on a regular basis to purchase food and other essentials. One innovative approach to bringing education into the public realm is through *playful learning*—child-directed activities that often include learning goals initiated or designed by an adult.

This paper is intended to help better explain the process of designing, implementing, and maintaining playful learning programs and installations that encourage the development of critical skills and child-caregiver connections for all children, but especially those living in under-served neighborhoods. It begins by describing Playful Learning Landscapes (PLL)—an initiative that uniquely marries the science of learning with urban design and placemaking to support adult-child interaction and neighborhood engagement in places where children and families regularly spend time.

The paper then summarizes key takeaways from 14 interviews with national nonprofit organizations and city and community leaders who champion playful approaches to building more child-friendly cities; it outlines five steps cities can take to adopt and scale playful learning in their communities. These include:

- **Coordinating within and across city agencies** to support the design and integration of playful learning efforts into new and existing programs and projects;

- **Collaborating with national organizations**, many of which are already deeply engaged with local philanthropic, civic, and neighborhood groups to support playful learning;

- **Meaningfully engaging with the community** to understand their needs and preferences, foster neighborhood trust and cohesion, and ensure local buy-in;

- **Sharing information in a clear and concise way** using a variety of venues and formats; and

- **Streamlining and simplifying processes** to more seamlessly embed playful learning in urban planning and design decisions.

As cities plan for what will be a drawn out and uncertain recovery process, we hope they can use this guidance to engage communities around a more expansive vision for how and where learning takes place—and to build stronger, more resilient communities in the decades to come.

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> **Through fun, interactive installations co-created in spaces that families frequent, Playful Learning Landscapes encourages the development of critical skills and connections.**

Addressing educational equity through play and placemaking

PLL offers a scalable, sustainable approach for embedding playful learning into the public realm. Through fun, interactive installations co-created in spaces that families frequent, PLL encourages the development of critical skills and connections. While PLL can benefit all children, evidence indicates that targeting activities in communities where families have less access to extracurricular learning spaces and enrichment activities could help children from these areas enter and engage in formal schooling on a more level playing field, setting a positive trajectory for later life outcomes.

PLL uniquely blends the science of learning with placemaking, which Project for Public Spaces defines as "a collaborative process by which we can shape our public realm in order to maximize shared value." PLL expands upon multiple other efforts and initiatives aimed at creating more child friendly cities. For example, on a global level, the Bernard van Leer Foundation launched Urban95—now in Tel Aviv, Bogota, Lima, and Istanbul—which explores how to make cities safer and more stimulating for the youngest residents and their families. UNICEF, too, is devoted to changing cities with its Child Friendly Cities Initiative. In the United States, the nonprofit KaBOOM! has decades of experience building safe, community-focused play spaces. And Too Small to Fail, an initiative of the Clinton Foundation, partners with community-based organizations and businesses to promote the importance of early brain and childhood development.

Family Read, Play, & Learn spaces in laundromats. Photo credit: Clinton Foundation.

What makes PLL unique is a critical layer of playful learning—a spectrum of child-directed play methods that include free play (no direct adult involvement), guided play (supported by adults toward a learning goal), and games (rule-based activities with learning goals) informed by the latest findings in developmental science. In guided play—the focus of interactions in PLL—an adult helps structure the activity, which is centered around a learning goal (e.g., an art project to learn about shapes). But children maintain control over their learning. Guided play affords children the opportunity to learn traditional skills like math, literacy, and spatial skills, but also promotes creativity, problem-solving, collaboration, and exploration.

For example, PLL's Urban Thinkscape installation—which transformed an abandoned lot next to a bus stop in West Philadelphia into an interactive play space—includes four activities and structures that target specific areas of learning such as spatial skills, language development, and executive function. In one of those activities, Jumping Feet, a series of stones with either one shoe print or two encourages children to jump following a pattern. Signage prompts children to put one foot where they see two and vice versa. This twist on hopscotch is an example of playful learning because it helps children develop their ability to vary their jumping each time they play the game. While children see the activity as fun and engaging, the intentionality behind the design is the key component for promoting learning through play.

A core element of PLL involves co-creation with a range of stakeholders including parents and caregivers in the community, along with community leaders and neighborhood businesses co-designing, developing, maintaining, and in some cases even evaluating PLL installations. For example, in Urban Thinkscape, researchers worked with community members to design evaluations of their project based on local needs and goals. Community members were trained to collect data through observation and helped determine the impact of the space on family engagement and child-caregiver discourse. Community involvement in this project has been sustained for over 2.5 years.

While there is no silver bullet for educational inequity, PLL offers a powerful solution with a wide range of outcomes. Data from pilot PLL installations in cities including Philadelphia and Chicago, among others, show that PLL promotes the kinds of caregiver-child communication that supports language learning and relationship building, encourages children's talk about numbers, letters, and spatial relations, and increases caregivers' understanding about the connection between play and learning.[iii] Outcomes like these are directly related to later progress in literacy and STEM (science, technology, engineering, and mathematics) and build a trajectory of success that lasts a lifetime. For example, research shows that the quantity and quality of language interactions between caregivers and children predict language growth.[iv] In addition, talking about math predicts children's acquisition of number words better than socioeconomic backgrounds.

At the same time, PLL engages communities around revitalization of the public realm, creating new opportunities for multigenerational social interaction and making cities themselves more vibrant and

livable. With more children growing up in socially, economically, and racially stratified neighborhoods, city and community leaders are increasingly looking to PLL as a promising way to engage families to help design and implement creative new spaces where children, caregivers, and community members can interact with one another, learn, and have fun.

Urban Thinkscape. Photo credit: Sahar Coston-Hardy.

How cities can scale playful learning

In a recent Brookings report on scaling strategies for PLL in Philadelphia, author Jenny Perlman Robinson highlights that the aim of scaling playful learning in cities is to move beyond replication of a single installation to infuse playful learning principles and design elements into the mainstream practices of government, businesses, and other organizations.

Scaling in this context means a few things. First, children need a large enough "dose" of community-based playful learning opportunities to have an impact on their learning and development. This means creating a learning ecosystem that targets where children and their caregivers spend time—the learning becomes part of their daily routines as they wait for the bus, buy food at the supermarket, or visit their local library. Importantly, these playful learning hubs should be concentrated in communities where children already have fewer opportunities to engage in healthy caregiver-child interactions—often due to caregivers holding multiple jobs and/or poor access to high-quality out-of-home care—and where they may have limited access to out-of-school learning opportunities.

Scaling also means thinking about the different "shapes and sizes" of playful learning. This can include big outdoor installations like Urban Thinkscape, signs in supermarkets that prompt caregiver-child communication, and interactive play spaces in public libraries, to highlight a few examples. A critical component of playful learning approaches is design grounded in the latest evidence from the science of learning, which tells us that children learn best when the experience is *active* (minds-on versus passive) and *engaged* (compels children to stay focused), *meaningful* (topics that children feel connected to), and *socially interactive* (encourages children to talk and share ideas). This means that developmental scientists should be part of the team working alongside designers and urban planners to craft play experiences that focus on learning outcomes. Adhering to these principles, rather than specific designs or activities, allows flexibility in implementation while providing an evidence-based framework to guide evaluation for effectiveness.

Fortunately, widely infusing playful learning in everyday places does not necessarily require a significant amount of new resources. Rather, cities can scale such efforts over time with commitment and coordination across public agencies; strong partnerships with community, nonprofit, philanthropic, and private sector actors; and a simple yet expansive communications strategy. Most importantly, scaling demands that playful learning becomes embedded into the design processes of programs and improvement projects—from playgrounds to bus shelters—as they get implemented over time.

Pulling from interviews with a range of leaders and advocates, below we highlight five ways that the public sector can start scaling playful learning in their own communities.

FIVE WAYS THE PUBLIC SECTOR CAN START SCALING PLAYFUL LEARNING IN THEIR OWN COMMUNITIES:

1 Commit to and coordinate efforts

2 Leverage and learn from national groups

3 Partner and engage for impact

4 Simplify (and spread) the message

5 Clear the way

1. Commit to and coordinate efforts

Change at the city level is unlikely without the commitment of a mayor or someone in the mayor's office, but scaling playful learning also requires institutionalization and coordination within and across city agencies—from public works to the health department. Indeed, numerous interviewees noted that while elected leaders come and go, public sector employees typically stay across administrations. They thus need to be engaged in the design and integration of playful learning efforts into new and existing programs and projects, and be empowered to revise, and even expand, them over time as needs and circumstances shift.

Tel Aviv-Yafo provides an example of how agencies can effectively infuse play and prioritize early childhood development in their work. City and community leaders launched their efforts in 2018 with a city-wide event that attracted over 8,000 visitors in Rabin Square—a central plaza located in the heart of Tel Aviv and surrounded by some of the city's busiest streets—focused on the importance of early childhood and play. Both the location and theme of the event sent messages to the families and residents of Tel Aviv that early childhood and play are a priority for the municipality.

As the initiative gained momentum, city leaders then worked to integrate early childhood programs in multiple city agencies, including parks and gardens, community development, education, strategic planning, transportation, and public health. At first, some agency staff pushed back, as they did not see a direct link between supporting early childhood development and the mandates of their departments. This initial resistance led the Urban95 team—which managed the program components and budget—to revise their program workplan to start with a phase of building capacity and political will, allowing agencies the time and space to inform—and ultimately embrace—their new directives around early childhood learning and development.

From there, cross-sector collaboration was built through frequent meetings and training sessions with municipal leaders, including a three-day study tour to Copenhagen that showcased play in public spaces and led to increased group motivation to prioritize early childhood. Today, Tel Aviv-Yafo has a municipal employee who sits within the Department for Community Planning and Development that works across different city agencies as a champion of early childhood. As Daniella Ben-Attar, the Israel representative for the Bernard van Leer Foundation, puts it: "This was an innovative decision taken with the municipality...because we knew that if it went to the Education Department, it would be very confined to child care, which is important, but it wouldn't get the Urban95 holistic view of public space, mobility, play, parents, and the broader integrative kind of things we're looking at."

In fact, one of the barriers to scaling that emerged as a consistent topic in our interviews was a lack of coordination among the multiple city agencies that are, or could be, involved in playful learning. The good news is that there is a growing trend in the U.S., too, for cities to have dedicated early childhood staff positions or offices that can act as a centralized entity and lead cross agency collaboration for playful learning projects.

For example, the City of Milwaukee's Office of Early Childhood Initiatives was established in 2017 to support providers and organizations dedicated to ensuring that the city's youngest learners, especially those living in under-resourced neighborhoods,

have a strong educational foundation. Other cities including San Francisco and Seattle have dedicated offices of early childhood to mobilize key stakeholders around early learning efforts. Many of these cities are supported by the National League of Cities' (NLC) Early Learning Nation initiative, described below, which helps to build strategic connections among partners and with national experts and resources, access the latest research and best practices, and provide grants to develop and implement local plans.

2. Leverage and learn from national groups

As noted above, numerous organizations in the United States and around the world are engaged in playful learning in a wide range of ways, working directly in dozens of cities and towns while also broadly advocating for children. These groups, in turn, often partner with local philanthropic, civic, and even private sector groups and actors—many of which serve as trusted intermediaries to community residents. Cities wishing to scale playful learning activities thus are not starting from scratch, but should look for opportunities to learn from and collaborate with these organizations.

In the U.S., for example, KaBOOM! is going beyond their seminal work on building safe and accessible playgrounds for all children (17,000+ play spaces built or improved and counting) to launch the Play Everywhere effort, with the goal of making play available anywhere that children and families spend time. This initiative has spurred new collaborations with community partners to transform bike and pedestrian trails, transit centers, laundromats, grocery stores, and sidewalks into "PLAYces" that promote exploration, discovery, and imagination. While KaBOOM!'s focus is on increasing

Play and Learn Library Space. Photo credit: Halkin Mason.

access to play for all children, their work is starting to incorporate learning goals in the design of their PLAYces through collaborations with organizations such as Playful Learning Landscapes Action Network (PLLAN), a consulting group with expertise in applying learning science research to urban design.

An important component of KaBOOM!'s approach is viewing the development of play infrastructure projects as a catalyst to building community cohesion and empowerment. By reimagining abandoned, neglected spaces as community assets and gathering spaces, Play Everywhere projects can support community priorities while at the same time increasing the amount of play in children's lives. For example, the Rail Trail Symphony in Charlotte, North Carolina is a whimsical pitstop with structures and activities that encourage children to join a jam session or create a tune while waiting for the light rail or walking to/from school. Before the play space was installed, many community members did not realize the space was for public use (or even existed). Rail Trail Symphony now provides a space for free concerts and events to raise funds and awareness for local and national charities, in addition to being a welcome spot to play along the way to the next destination.

As part of their technical assistance initiative to strengthen community plans to build more child-friendly cities, the NLC and the Center for the Study of Social Policy (CSSP) launched Early Learning Nation, a network of communities whose local officials are prioritizing children and families with a focus on learning and development for early and life-long success. For example, through this initiative, NLC helped Sacramento forge a collaboration between its public libraries and the Parks and Recreation Department to create mini libraries in outdoor spaces

throughout the city. This national partnership effort has helped Sacramento and other network communities learn from one another about their successful (and not so successful) strategies, and has allowed NLC and CSSP to capture and communicate those insights for other cities interested in promoting play in public and shared spaces.

Finally, Too Small to Fail has created a unique partnership with the Laundry Cares Foundation, the charitable arm of the Coin Laundry Association, to transform laundromats into playful literacy-rich spaces. This collaboration helps caregivers make the most of the time that families spend at their neighborhood laundromat (an average of 2.5 hours for each visit) by creating an inviting space where children can play, read, and draw. The national partnership has distributed literacy materials, including children's books and posters featuring parent-child conversation prompts, to 5,000 laundromats across the country. The "Family Read, Play & Learn" kits—including furniture, books, toys, and a colorful rug—can be purchased by laundromat owners or local literacy organizations interested in installing the space in a local laundromat as part of a community partnership. As part of the kit offering, the Laundry Cares Foundation and Too Small To Fail help facilitate connections with local libraries to deliver programming and additional resources to families. As Jane Park Woo, director of Too Small to Fail puts it: "This kind of model of meeting families where they really are has really been a win-win, not just for children and families, but also for the local businesses. We had a father say, 'We have a laundromat around the corner from our house, but we walk six blocks to this one because of the space.'"

These examples illustrate how national organizations can act as a central resource for designing, implementing, and maintaining

play-focused initiatives, which in turn can help public entities break down internal silos so that limited resources can be maximized to support children and families that need them most.

3. Partner and engage for impact

In the Brookings report on scaling PLL in Philadelphia, Robinson highlighted the importance of forging partnerships with community organizations and public champions as building blocks for scaling and sustaining playful learning initiatives across locations. Through meetings and focus groups with leaders of community organizations, churches, residents, and other stakeholders, organizers of playful learning initiatives can gain clearer understanding of community needs, spur interest in the

project, and improve designs. Longer term partnerships with local groups also provide important conduits through which to communicate messages, implement activities, and engage residents in maintaining sites and assessing impact.

Michigan's Great Start initiative on early childhood offers an example of how to successfully partner with an organization with deep roots in a community. This community-focused approach provides a holistic health and early learning system to ensure that children (from prenatal to third grade) have access to high-quality early childhood development and learning resources to prepare them for a successful start to formal schooling. One of the ways the initiative reaches local communities is by partnering with churches in Detroit to

Supermarket Speak. Photo credit: Saxum.

encourage caregivers to Talk, Read, and Sing—a campaign created by Too Small to Fail— to their children. Pastors embed messages around early learning and the importance of language-rich experiences for future school success in church bulletins, and banners in and outside of churches reinforce these messages to caregivers and families. While the activities of this initiative have changed since the COVID-19 pandemic hit, the commitment of the church leaders and enthusiasm of the church members has not waned. Church leaders continue to send families learning activities to do at home and distribute books through contact-safe pick up at the church.

Working through local partners not only provides more channels through which to disseminate playful learning messages and activities, but it also helps ensure that the activities are tailored to the unique needs of the community and enriched by their culture, interests, and assets. For example, in early 2020, United for Brownsville, a community-wide initiative focused on improving language and social-emotional development for young children of the neighborhood in Eastern Brooklyn, launched an initiative that turns a weekly trip to the supermarket into a learning opportunity for children and families. The program was adapted from similar campaigns launched by Too Small To Fail but was customized to represent the Brownsville community. At the heart of the campaign is Blake, the Brownsville Bee, which local designers created with input from community residents. Through this process, United for Brownsville learned that children and their parents responded better to signage that employed a character unique to the community, making the overall effort more impactful.

In short, when community members are meaningfully involved—and local wisdom valued—from the onset, residents become more invested in the project and feel a greater sense of ownership of it over time. This not only improves the likelihood that the project will succeed, but also helps foster neighborhood trust and cohesion, and builds social capital that can be applied to future efforts.

4. Simplify (and spread) the message

Parents of young children are often overwhelmed with work and child care responsibilities, and do not often have the time to engage with, or may even be put off by, long or seemingly unrelatable materials or messages. Several interviewees noted that to reach busy families, information needs to be shared in the most clear and concise way, in various formats and venues.

The simple mantra of Talk, Read, and Sing, highlighted earlier as part of Michigan's Great Start initiative, has been successful because the core message connects with families, early childhood professionals, and community leaders. An interviewee from Detroit recalls: "There was no negative feedback, no kickback, no bounceback, no critique…A parent would say, 'I didn't know this was important. I can do this and I will do this.' And so we have just literally locked onto the Talking is Teaching initiative and expanded it in 20 different ways because it works." This "less in more" strategy not only feels more doable for parents, but it also enables trusted messengers in the community to create numerous, and thus reinforcing, touch points in places where families spend time, including laundromats, houses of worship, convenience stores, WIC offices, and libraries.

Chicago PlayStreets—a community engagement initiative led by the Chicago Department of Public Health—provides a

different sort of example of the importance of clear and practical communication. PlayStreets encourages active play for children and adults by transforming residential streets into safe gathering spaces for families for a short period (typically three to five hours) of time. A key to the success of this community initiative is communicating to residents the important link between physical activity and play for improved cognitive, social, and physical health and development—and how closing streets is a low-cost way to facilitate fun, exercise, and socialization when other play spaces are limited. If kept clear and to-the-point, these messages can help break down a major implementation barrier to PlayStreets—residents not wanting to move their cars off the street. Giving residents more motivation to move their cars *and* another place to park them (e.g., an empty school parking lot) can help boost these efforts' success.

Encouraging learning through play should not feel like a complicated endeavor—for parents, or for the public sectors and other entities working to facilitate it in their communities. Finding, and sticking to, a message that works makes it easier for everyone to integrate playful learning into their lives and work.

Urban Thinkscape. Photo credit: Sahar Coston-Hardy.

5. Clear the way

PLL is a nascent field that brings together stakeholders and decisionmakers from two very different areas—the learning sciences and placemaking. As such, finding common ground between the two areas can be challenging—most learning scientists do not know much about urban planning and design and vice versa. Similarly, most city agency staff are unlikely to see playful learning as part of their purview—largely because it never has been. Until the idea of playful learning truly takes hold, partnerships are formed, and communities are engaged to advocate for it, agency staff are unlikely to even know about efforts and strategies, let alone understand how to embed them in current practices. Moreover, without a remit to facilitate existing efforts by other organizations or even other agencies—say, to develop a streamlined permitting process for a street closure—city staff can inadvertently make them harder to implement.

One way to overcome this challenge is training urban planners and designers— whether public employees or private actors with whom cities might contract— to embed playful learning into projects and programs from the start so it is not seen as an added effort, or added cost. As mentioned previously, this training needs to involve developmental scientists with expertise in translating research to practice. As an interviewee from Philadelphia shared, "Ten or fifteen years ago I think designers had to go beyond their typical designs to incorporate strategies for sustainability. Now it's happening inherently. It's part of the design. And so the ideas for playful learning… that is just something we want automatically incorporated into everything that we're doing." This might include the redesign of a public space, the rehabilitation of a bus shelter, or a repainting of the DMV—all of which provide new opportunities to include playful learning activities and messages.

In short, cities can engage in playful learning through many entry points—but they need to prioritize and socialize the idea, learn from (and partner with) existing organizations and efforts, and educate and support staff to grease the wheels. As another interviewee put it, "Play everywhere is an elegantly simple concept—it's an inexpensive, small-scale intervention…The biggest hurdle is the permissions and the permitting and what's allowable in the public realm. That ranges from place to place." Making it easy should not be hard, if the will and commitment exists to do so.

Conclusion

Under ordinary circumstances, children spend 80 percent of their waking time outside the classroom. The COVID-19 pandemic has abruptly turned that 80 percent into 100 percent. With learning taking place entirely outside of the classroom for many children, the role of families and the community has been elevated as a critical component of education and healthy development. Some families can navigate this terrain by virtue of their privileged circumstances and having high-quality digital equipment and access, the resources to hire tutors, and access to safe spaces for their children to run and play. But many more children will be left behind, as new barriers to learning are erected on top of those already in place by decades of discriminatory policies and practices. They may never have the chance to catch up.

But with crisis comes opportunity—a moment for communities to extend beyond traditional educational programs and venues to create an ecosystem of learning that maximizes the chance for children to engage in playful learning as part of their daily routine. This new and improved "normal" would provide a surround sound of learning—through signs at the supermarket, reading nooks at the laundromat, activities at the bus stop, and games on sidewalks, among many other possibilities. PLL provides a successful model, backed by evidence, of how to create such an ecosystem by transforming everyday spaces into learning environments—in turn reducing educational inequities for vulnerable children, their families, and communities. As cities in the U.S. and abroad continue to build more child-friendly cities, they can look to this "north star" for ideas, and tailor them to their own context. The steps outlined above provide guidance for how public, nonprofit,

community, and private sector actors can work together to successfully implement and scale such efforts.

The impacts of COVID-19 make it even more apparent that we need to rethink our priorities for building more livable, equitable, and vibrant cities. As Mayor Enrique Peñalosa of Bogotá, Columbia eloquently reminds us, "Children are a kind of indicator species. If we can build a successful city of children, we will have a successful city for all people."

Urban Thinkscape. Photo credit: Sahar Coston-Hardy.

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