THE BROOKINGS INSTITUTION

PLAYFUL LEARNING LANDSCAPES:
AT THE INTERSECTION OF EDUCATION AND PLACEMAKING

Washington, D.C.
Wednesday, February 26, 2020

Welcome and Presentation:

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Fellow, Center for Universal Education, and Anne T. and Robert M. Bass Center for Transformative Placemaking, The Brookings Institution

Panel 1: How Early Learning Can Be Realized Through Play and Caregiver Interaction:

REBECCA WINTHROP, Moderator
Senior Fellow and Co-Director, Center for Universal Education
The Brookings Institution

GREGG BEHR
Executive Director, Grable Foundation

KATHY HIRSH-PASEK
Senior Fellow, Center for Universal Education, The Brookings Institution
Stanley and Debra Lefkowitz Faulty Fellow, Department of Psychology, Temple University

JOAN LOMBARDI
Director, Early Opportunities
Former Chair, Playful Learning Landscapes Steering Committee

Panel 2: Reimagining Neighborhoods to Foster Playful Learning:

JENNIFER S. VEY, Moderator
Senior Fellow and Director, Anne T. and Robert M. Bass Center for Transformative Placemaking
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NIDHI GULATI
Senior Director for Programs and Projects, Project for Public Spaces

SARAH SIPLAK
Director, Playful Pittsburgh Collaborative

ELLIOT WEINBAUM
Program Director, William Penn Foundation

Keynote Remarks:

FRANCES BRONET
President, Pratt Institute

Closing Remarks:

RALPH SMITH
Managing Director, Campaign for Grade-Level Reading

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P R O C E E D I N G S

(Video starts)

HIRSH-PASEK: Imagine if a bench were no longer just a bench, but that we could transform that bench so that it had puzzles that helped develop STEM skills of science, technology, engineering, and mathematics.

HADANI: Brookings launched an initiative between the Center for Universal Education and the Bass Center for Transformative Placemaking, in order to address the question, and the challenging issue of building better cities that support learning for children and families.

HIRSH-PASEK: Playful Learning Landscapes is an exciting evidence-based solution to how we can transform our cities to offer a place where community members can get together, can express their ideas, can celebrate their culture.

VEY: Playful Learning Landscapes can produce multiple benefits. Not only can they create new learning opportunities for children, but they can also reinvigorate public spaces and create new gathering spaces that can nurture social interaction.

HIRSH-PASEK: Urban Think Scape was a redesign of a bus stop. We asked the question, couldn't we just put puzzles around the benches so that when families are waiting, they're practicing spatial learning that we know is really important for later mathematical outcomes.

Parkopolis was a wonderful human sized board game designed to help children learn more about science and math as they go around the board. new dice were configured. No longer the one to six and one to six, but one to six and fractions.

VEY: The Bass Center for Transformative Placemaking and the Center for Universal Education at Brookings are bringing together our respective expertise and knowledge to scale Playful Learning Landscapes across U.S. cities, and eventually across the globe.

HADANI: The mission of Playful Learning Landscapes at Brookings is to build a global network of stakeholders, to advance the theory and practice of building better cities to support learning for families and children.

(Video ends)

MS. HADANI: Welcome to Brookings, I'm Helen Hadani, and I'm a fellow with the Center for Universal Education and the Bass Center for Transformative Placemaking. I would first like to thank the Bernard van Leer Foundation, and Bob and Ann Bass for their support of the Playful Learning Landscapes Initiative here at Brookings.

The Bernard van Leer Foundation support of the Playful Learning Landscapes Initiative through the Center for Universal Education, and the support of Bob Bass, a trustee of Brookings, and launching the Bass Center for Transformative Placemaking makes the work we do here possible.

I would also like to reiterate, Brookings' commitment to independence, and underscore that the views expressed today are solely those of the speakers. And lastly, I would like to thank my many colleagues who helped support this event this morning.

This is an event about playful learning. So, we're going to start with a very quick activity. On your seats, you should have found a small box of crayons and two index cards. One of the index cards, the small white one, I'd like you to save for later in the event. The big blue index card you're going to use right now.

What I want you to do is, think back to your childhood, and think about what and how you loved to play, but don't think too much because I'm only going to give you about 60 seconds to do this activity. Okay. But first, I'm going to show you my drawing (laughter).

Okay, so as you can see my childhood was filled with Hello Kitty. Hello Kitty everything. Okay. So, now I want you -- now is your turn. Okay. You'll have about 60 seconds to do your drawing. Ready, go.

You have about 30 seconds left. Okay. Hopefully are pretty much done with your drawing. You can continue later. And also there are baskets at the back, if you would like to leave us your drawing we would love to have it. Okay.

We all played as children and hopefully have some very fond memories of playing a favorite board game or card game with our siblings and friends. Or maybe an endless game of hide and seek at our grandmother's house. But play is more than fun. It's is how we form relationships, how we build core cognitive and social skills, and how we reduce stress.

I had countless tea parties with my Hello Kitty dolls and many stuffed animals that I often

subjected my two older brothers into partaking in. And I still hear about that to this day. But I also learned some important skills through that play. I learned some important language and social skills, and how to divide a pretty pink cake into six equal pieces.

I'd like you to now take just a moment, look down at your drawing and think about what did you learn from how you played as a child? Maybe it was learning something about spatial reasoning by building with Lego bricks or doing puzzles. Or maybe you learned something about friction and velocity by building ramps for your Matchbox cars. This is the connection between play and learning.

Today I'm here to share a big idea around playful learning. Here at Brookings we are about capturing, designing and communicating big ideas to solve complex problems. The Playful Learning Landscapes Initiative at Brookings is a joint venture between the Bass Center for Transformative Placemaking and the Center for Universal Education.

Working at the intersection of both of these centers, I am leading this initiative and bringing together an interdisciplinary group of scholars and practitioners to transform everyday spaces into powerful and fun learning environments for children and families.

But what is the challenge that we are addressing? We have a global learning crisis. Experts predict that by the year 2030 over half of the world's youth, that's over 800 million young people, will not have the skills that they need to succeed in work and their future careers.

In high income countries like the United States, we are failing a third of our children. In the United States, economic disparities among families lead to large gaps in educational outcomes, and achievement gaps between cognitive and social skills of children living in middle income communities, and peers from their under -- peers from under resourced areas emerge as early as age three. That sets the trajectory for children from under resourced communities to poor academic outcomes.

We know from research that early childhood education is one of the most powerful mechanisms for increasing social mobility and economic opportunity. And policymakers have focused largely on top down reforms to improve formal education environments, including preschool. But this strategy ignores the 80 percent of waking time that children spend outside of school with their families.

We also know from research that quality child care giver interactions and communication are a key ingredient and critical to healthy early development. Yet families experiencing poverty have

fewer opportunities to engage in these healthy communicative interactions.

Low resourced environments often have low quality public spaces, and public infrastructure. And fewer opportunities for children and families to engage in nurturing learning environments, both formal and informal, including museums and libraries.

By addressing educational inequity through a holistic community based model, Playful Learning Landscapes, sets in motion transformative and structural change at the individual, family and community levels and broadens economic opportunities and encourages social mobility.

Through fun, interactive installations, co-located in spaces that families frequent, including bus stops, and supermarkets and libraries, Playful Learning Landscapes encourages the development of critical connections and skills allowing children from under resourced communities to enter formal school on a more level playing field, and to continue to thrive in school and beyond.

And while there is no silver bullet for educational inequity, Playful Learning Landscapes offers a unique and powerful solution with a wide range of outcomes. From a child development perspective, Playful Learning Landscapes enables a mindset shift among caregivers and communities around the role of child caregiver interactions and play in foundational learning.

At the same time Playful Learning Landscapes, from a place-making perspective, makes cities more beautiful and livable for their residents. And engages communities in revitalization of the public realm, transforming vacant lots and bus stops and providing opportunities for critical social interaction among children and adults alike.

So, we find ourselves today at a very exciting moment, as there is a growing evidence base and local experiences contributing to the playful learning movement.

One recent contribution is a report produced by the Center for Universal Education, with support from the William Penn Foundation through Temple University entitled, Philadelphia Playful Learning Landscapes: Scaling Strategies for a Playful Learning Movement. For those interested, there are copies at the back for you to take.

This report explores Philadelphia's efforts to apply the latest in learning sciences to urban planning and design to improve early outcomes, early developmental and learning outcomes for children and families, especially those living in under resourced and marginalized communities.

With Philadelphia serving as a demonstration site, the report documents efforts to scale Playful Learning Landscapes, installations and activities and offers lessons learned to inform further expansion in Philadelphia and other cities and across the world.

Some examples of Playful Learning Landscapes installations, a few of these highlighted in the video that you just saw are supermarket speak, which transformed a daily trip to the supermarket into a learning opportunity through simple signage such as where does milk come from? In the dairy section.

This promoted caregiver child interaction and communication and results found a huge increase in the number of caregiver child interactions and communication. A 33 percent jump when the signs were up versus when the signs were down in low income neighborhoods. And it's important to note that this work has now been replicated in other cities, in laundry mats and food pantries.

We also have Parkopolis, which enriched a public space, a children's museum with math and science learning by engaging children and their caregivers in a life size board game, where children roll fraction dice and move one and a half or two and three quarter spaces. Results found that 39 percent more children used whole number language and 12 percent more children used fraction number language when engaging in Parkopolis compared to another STEM exhibit.

And then we have Urban Thinkscape, which transformed a vacant lot next to a bus stop into a play space infused with learning science, by adding puzzles to the back of a bench. And transforming the childhood hopscotch game into an executive function activity.

Urban Thinkscape has shown significant increases in quality child caregiver interactions. Also an increase in the number of caregivers using language around letters and numbers and colors from just over two percent at pretest to 36 percent at posttest. As well as heightened community pride and civic engagement.

At its core Playful Learning Landscapes involves co=creation with the community. Community leaders and neighborhood businesses co-design, develop and maintain Playful Learning Landscapes installations. Playful Learning Landscapes installations including Urban Think Scape saw researchers work with community members to design evaluations of the projects that met the community's needs and goals.

The Philadelphia report concludes with a call to action on how to move beyond supporting the replication of a single installation to shaping mainstream practices of government, businesses and other organizations to incorporate playful learning principles into their own work.

The call to action centers around three general areas. The first is generating evidence about playful learning to continue to build the evidence base, including developing shared metrics across Playful Learning Landscapes initiatives.

Secondly, to capture and codify key elements and approaches to implementing playful learning initiatives. Evidence about what is working and how it is working is critical for transforming cities into vibrant learning communities.

And thirdly, to build a coordinated global movement around playful learning. With a central hub to coordinate efforts, connect partners and share the learning across various sites, cities across the world can collectively pool their resources, their skills and their expertise to develop family friendly cities.

The report was informed by many of you here today, including data from pilot installations from Philadelphia, and a number of other cities, as well as additional background research about relevant efforts to scale playful initiatives that have led to widespread changes in learning outcomes for children and families. Our intention is that the findings and the lessons learned from the report will feed into many of the discussions today.

And I just want to, before I close, highlight one of my favorite quotes about building family friendly cities. Children are a kind of indicator species. If we can build a successful city for children, we will have a successful city for all people.

So, I'd next like to give you a quick preview of the rest of the morning's events so you know what's up and coming. We're excited to have two panel sessions led by my colleagues, Jennifer Vey and Rebecca Winthrop.

Rebecca's panel will take deep dive into the connection between play and learning and how early learning can be fostered through play and child caregiver interactions.

That will be followed by Jennifer's panel, which will explore the promise of public spaces for promoting learning through play, and ways of measuring the impact at multiple levels.

After the two panels, we are very honored to have Francis Bronet, the President of the Pratt Institute, give our keynote address. And then we will have Ralph Smith from the Campaign for Grade Level Reading wrap up with some closing comments. Thank you very much and enjoy the morning.

MS. WINTHROP: All right, wonderful. Good morning, everybody. Thank you so much Helen, for wherever she is, there she is, for kicking us off giving us the big idea and the overview. I'm Rebecca Winthrop. I'm the co-director here, as Helen said, with the Center for Universal Education. You will soon in the next panel hear from my co-conspirator partner in crime Jennifer Vey who directs the Bass Center for Transformative Placemaking.

Very delighted to have join us today, Greg Behr, who's the executive director of the Grable Foundation. Joan Lombardi, who is -- her title here is director of early opportunities, but I must say she has a very long career with many other titles that are not featured here, including a distinguished career at the U.S. Health and Human Services Department leading early childhood for the nation and working with many different initiatives and foundations on this topic.

And last but not least, the sort of mother of Playful Learning Landscapes if I can say that Kathy, is Kathy Hirsch-Pasek, who we're very lucky to have with us here at Brookings as a senior fellow, but also as a professor at Temple University. So, thank you all for being here.

And, Kathy, I wanted to start with you. Because a lot of what we've had conversations about in terms of big picture, things that we care about at the Center for Universal Education, is thinking about, you know, are we preparing our young people for the world they will enter as adults? Are we preparing them for the labor market? Are we preparing them to be good citizens? Are we preparing them to thrive in their personal lives?

And we certainly know from lots and lots of literature that the one thing we absolutely have to do is give young people a broad set of competencies and skills. They do need strong academic knowledge. But they absolutely need strong call whatever term you want, some people talk about 21st century skills, some people talk about social emotional learning. We have a list of actually 300 terms, transversal skills, transferable skills, etc.

But I won't give them all. The point is young people need to have strong analytical

experiences, strong knowledge, and then they need to know how to learn new things over the course of their life. They need to know how to work with other people, think critically, have empathy for others. And this is something that we talk about as sort of the breadth of skills and it's certainly something we work a lot on at Brookings within education systems, talking to education systems, how they can deliver a breadth of skills to students more effectively.

And employers are asking for it on and on with the rising age of automation. We know that 50 to 70 percent of job tasks, so within jobs, tasks, a lot of tasks will be automated. And everybody will need to do a -- have a lot more higher order thinking skills, whether it's a manual job or a sort of cognitive job.

So, that's something that's really important, and education systems have to grapple with. But we know from what Helen talked about that the gap is so huge and the pace of change is so long and slow, that we absolutely have to find any good idea out there that we haven't yet tapped to try to advance closing this gap.

In the U.S. the pace of change is so slow between rich kids and poor kids. It's about on average 126 years for poor kids to catch up with rich kids in the United States. It's going to take 126 years for just basic school readiness indicators.

And, you know, so we we've got an urgent crisis on our hand. And this is part of why we are really excited about this idea of unlikely allies between the Placemaking and Urban Planning Community and the and the Early Childhood Development Community.

And so one of the things, Kathy, I wanted to start with you on, you, in the presentation, Helen featured much of your research and much of the sort of installations that you've been experimenting and playing with for years to see, are there other ways for us to sort of nudge the type of caregiver child interaction we know is really crucial.

And I wanted you to talk just a little bit about two things. And explain to the audience why Playful Learning Landscapes works. So, from a child developmental to psychologist. One is this idea of play. Like what I'm not a play specialist, and I've -- what I have determined and there's no one definition of play that they all agree on.

But that there is a continuum of play that everyone agrees on. On one side there's free

play, kids just going out in the street playing around doing whatever they want. On the other end of the spectrum is very structured games. And somewhere in the middle is guided play, which is where Playful Learning Landscape sits. Tell us about why is guided play so important for helping close this big gap?

MS. HIRSH-PASEK: Sure. Well, thank you and thank you all for being here today. I also just want to point out that my partner in crime, Roberta Garland-Cough is here in the audience today, and we've done everything together for like 40 years, so she needs to be acknowledged too.

So, what I think we've learned in the science are several key foundations. The first foundation is that we're getting a much better handle on how human beings learn. And they learn, if you can even put this in a tweet, right, they learn when they're doing something active when they're engaged not distracted. When something's meaningful, rather than disjointed. When it's socially interactive. And believe it or not when it's joyful.

Now, let's try to figure out what in the world includes those features. And it turned out that much of what we were doing in school was the antithesis of active, engaged, meaningful, socially interactive, and joyful. So, how did we turn that around?

And the other thing that we realized is that there really are a suite of skills that you need. We went down a rabbit hole, and the rabbit hole was kind of, oh my gosh we better make sure that kids just do well. And notice the just there. In their math outcomes when we give them a standardized test. We don't even really know sometimes what we're testing. And when we give them a math test.

So, the question that we had to ask ourselves is what do you really call success as a society? And what are the suite of skills? And what we figured out at some point from again, the evidence-based point of view, is that a lot of the suite of skills appears in the sandbox and it takes you all the way to the boardroom.

Now the question is, how do you best deliver that? And one thought in early education was that the best way to deliver it was let the kids play. And so you ended up with this war going on between the play schools and the direct instruction. Sometimes known by the other campus drill and kill, where the play group was called the superfluous group, or the just play group. All right.

So, as we looked at the evidence, we thought my gosh there has to be another way. There has to be a way that we can offer rich curricular goals, and at the same time do so with a

pedagogical approach that is active and engaged, meaningful, socially interactive and joyful. Ta da.

So, we looked at the continuum of play, and instead of just talking about go out into the playground and you will come back as a reader, we thought it might be a better idea to have a learning goal in mind. Whether it's the museum type where you structure an environment, where the kids kind of fall into what their parents, notice the two gen here, where they fall into doing things that are going to support that.

Or be the guide on the side, where you're kind of prompting and nudging on the side. You put all that together and Playful Learning Landscape seemed like the natural way to do what we call guided play, which is that play in the middle, allowing the kids to be the agent of their own learning in a richly based environment. And there you sort of cut it in half and you said we can do both.

MS. WINTHROP: Fantastic. So, another sort of follow up question for you about why, so that explains the sort of why Playful Learning Landscapes as its structured and designed gets to the guy to play in the outcomes you want. Could you tell us a little bit about why changing caregiver child interaction is so important and how does Playful Learning Landscapes do that exactly?

MS. HIRSH-PASEK: Yeah absolutely. And I'm going to use an example to help out here, because I think it makes it so clear. Let's take reading. What we often do to enhance reading is we go after phonics right away, and we teach lists of vocabulary words. Think SAT. Remember when you sat down and learned the word syzygy, never to be remembered again? Okay. Now --

MS. WINTHROP: I never learned that word.

MS. HIRSH-PASEK: You can look it up later. All right. So, anyway, the problem with that is that it doesn't stick. And when it doesn't stick, it doesn't transfer. And when we look at learning in the scientific literature, we look for stickiness, and we look for transfer.

So, the question was, how do you learn to read? Well, it turns out in learning to read, you kind of start with communication. And when you have -- I'm sorry with collaboration and relationships. And with those relationships, you start to get a back and forth.

In fact, the scientific evidence that's growing on these relationships, and the importance of the back and forth dynamic, many of you have probably heard of this as serve and return. But we kind of -- we call it a conversation to -- a conversational duet, because it's serve and return and return and

return and return, that it actually creates brain structure. All right.

And when you know that, then you're building the communication of language. So, collaboration of relationships, builds communication. If you have strong language skills, then you're not learning isolated words for an SAT test. You're learning them in context. And when you learn them in context, you actually hold on to them. And you have a rich knowledge base so that when you learn those words, they make sense.

And that way, you're going to become a real reader because the reading is based on something. So, even something as simple as reading works that way, but there's tons of evidence now. In fact, a recent report that just came out from Kim Nobles lab, shows that the gap that we have seen in reading over the years can be fully accounted for. Imagine this, fully accounted for by the kinds of conversations you had with your family so many years before. Unbelievable.

MS. WINTHROP: And that's why the nudging, and some people think of -- taught -- when I described this to them they are like, oh it's like behavioral economics, like it's a nudging. But that's why placing a design of a physical environment nudges this sort of increased quantity and quality of language. That's --

MS. HIRSH-PASEK: That's exactly it.

MS. WINTHORP: -- why it's important. Okay.

MS. HIRSH-PASEK: And I just want to say that you can target it. So, if we put things out in the environment that is more STEM like science, technology, engineering and math, what do we get, stem language. What do we know? If you use more STEM language, then go on a few years and the research tells us that prepares you for school readiness.

MS. WINTHROP: Okay great. I want to turn to you, Joan and Greg. Now that we have sort of a better understanding of like, how this actually works, can you bring us up a level and tell us, because both of you have done quite a bit of programmatic initiatives across jurisdictions, how does this Playful Learning Landscapes initiative fit in with, you know, the range of other types of child friendly initiatives at community level that's happening?

MS. LOMBARDI: Great. Well, thank you Rebecca. And it's great to see everyone here, so many friends. I want to thank you first and your whole team for shining a spotlight on not just the 20

percent, but the 80 percent of time when children are learning. I wanted to reinforce that concept. It's what we call surround sound learning, because you're learning all the time and those concepts are being reinforced.

And, Kathy, thank you so much for the words guided play and the research that you're doing. When I entered the field many years ago, as you noted, there was this big debate between play and direct instruction. I thought it was over. And then a few years ago, just like two years ago, a reporter called me and said, What's your position on play versus academics? And I thought, here we are again.

And I think what this -- what you're doing here is really finding that middle, that it's not either or, that children are learning all the time. And that it affects their development holistically.

I wondered what people wrote about what you learned when you were playing. From what -- me I was climbing trees, I learned independence, I learned initiative. And I think those social skills, those emotional skills really stayed with me.

I also just want to note, the importance of caregiver child interaction. How many of us have been on the playground with our child, when they say, mommy look at me, or daddy look at me, that's an amazing opportunity for us to reinforce how important they are, how to respond to what they're doing, and to really be intentional about extending that learning. So, I just wanted to reinforce some of those concepts.

Turning to the community and Greg and I've spent a lot of time talking about this. We both work a lot with communities. What I'm seeing across the United States is just amazing. Great work is happening at the local level. Whether you're in Alameda County or Onondaga County, whether you're in Palm Beach or Lincoln, Nebraska, or Detroit, Michigan, or whether you're in Sierra County, Kenya, or Bogota, Colombia.

There is a movement happening where people are coming together and saying, how can we be the best place to raise a child? And how can we look at how children are learning, and how they're doing, how they're developing at birth, at three, at five, and then eventually how they're doing in the early grades of school and beyond.

What's exciting to me about Playful Learning Landscapes is that we need to enjoin it with that movement that's already going on at the community level. And because it does two things. One,

when you have what you saw in Philadelphia, if -- it's a metaphor for what's going on in the community and how they care for young children. It brings people's attention to the needs of young children and how they learn.

Secondly, and this is the advocate speaking, it brings on new champions, architects, urban designers, people that think differently than the traditional early childhood people. And together I think they can be champions for young children. And that's what we want.

MS. WINTHROP: Great. Greg thoughts?

MR. BEHR: First, I feel so lucky to be here. I feel like I'm amongst and between three luminaries, all of whom just give us a masterclass. So, if anyone ever has felt imposter syndrome --

MS. WINTHROP: Oh get over it, you are fine.

MR. BEHR: So, I come from the other side of the state in Pennsylvania in Pittsburgh, which is Fred Rogers' hometown. And Fred Rogers taught us and his legacy remind -- reminds us that play is the real work of childhood. Pittsburgh is a place we like to call Kidsburgh and have that aspiration to be one of the best places on planet earth to be a kid and made easier to be a parent.

And when I think about the playful design of playful learning spaces, I think about moments. How many of you have a child or have a child in your life? And you think about the moments in those kids lives. Think of birthdays. Kids talk about their birthdays about 11 months in advance of their next birthday.

Well, think about these playful learning spaces. They create moments. They create remarkably special moments for kids together within a parent, or an adult, that makes learning visible. It makes learning visible and playful and joyful at a bus stop at a supermarket at a crosswalk in a museum in a library.

And that expression, that public expression is a public expression of our commitment to kids. It's why Helen, I love that quotation from the Mayor in South America. That kids are sort of an indicator species, right. Because if we create an environment and an environment drives the behavior of a commitment to kids, and that learning happens anytime, anyplace, well that happens in our schools, it happens in our museums, and it happens in our libraries, but it happens in our public spaces.

And if we take the moments to design those public spaces that create those moments for

an adult and a child, then we have made that commitment to children and youth in the way that we need to.

MS. WINTHROP: And I have a follow up question for you, Greg. And then also, Joan, I'd like you to pitch in. I mean, I teased you a moment ago, don't be silly, you absolutely belong here. In part because I want to pivot to the policy realm, which is where you've been an absolute leader, particularly in Pittsburgh and in the surrounding jurisdictions.

So, if we think this is a good idea, if we think this really is going to help young people, you know, how do we get more attention, get communities to start focusing on the other 80 percent. Not in any way to say don't keep focusing on the schools, but like how do we galvanize that other 80 percent? What types of policies do we need? What types of public campaigns do we need? You've really done that. Can you tell us what have been the big strategies? What have been your lessons learned? And then Joan, I'd be interested to hear your perspective also.

MR. BEHR: Well, I think Playful Learning Landscapes happens in a place where we do the unsexy work of a lot of systems building. So, when I think about Pittsburgh, when I think about Kidsburgh, there's been decades of work of building a quality early learning system, decades of work of building an out of school time system. Looking to Boston, Providence, other cities as examples, decades of building a mentoring system.

In the past 15 years, we've built a network called Remake Learning, which is a network of more than 600 schools, museums, libraries, Early Learning Centers, creative industries, higher education. Thinking about and collectively working on what is relevant, what is engaging, what is joyful, what is equitable, as we think about creating learning environments in all the places where kids learn. People like to say learning anywhere, anytime, at any pace.

And so it's that, quite frankly, it's the year in year out work that happens in building a community of relationships among adults who are then positioned, because they're superintendents, because they're architects, because they're designers, because they're librarians to think about learning experiences. Whether it's a space or curriculum or professional learning to think differently about how we're supporting and capturing learning opportunities for young people.

MS. WINTHROP: And some people might not know about Remake Learning, can you

just describe it? And perhaps your Remake Learning weeks and, you know, whatever features of it you want to describe it. Yeah.

MR. BEHR: So, it is this 15-year-old network. So, what is Remake Learning? If you're a school superintendent or you're a librarian, there are grants you can apply to, there are meetups every month, there are conference delegations. We just took 20 superintendents to San Diego, there'll be 67 people going to South by Southwest in Austin next month. It's -- it creates a community of adults who have access to communications resources, etc., to create these learning environments.

Now it serves educators and practitioners. And so we've worked hard to say, how do we connect with parents, families and caregivers, and help them understand the importance of the learning sciences, and how this learn -- how the learning sciences are built into these learning environments.

And if in fact, my kid is lit up by playful learning, or by making, or technology enhanced learning, how do I support my child? So, five years ago we launched something called Remake Learning Days. It's a lot like the ultimate block party that is featured well in the Philadelphia report.

Taking a region and thinking of it as a learning campus. There are more than 250 events over the course of nine days in Pittsburgh, during which parents, families and caregivers can experience how learning is being remade and how to support their child in these contemporary learning moments and environments.

And this work is now spread such that 15 cities across America from Washington DC to San Diego will be hosting Remake Learning Days this upcoming late April and May.

MS. WINTHROP: Great. So, Joan, I want to go to you, particularly if you could lean in a bit on the policy angle, on sort of like how we -- how can we get this movement going? How do we shift the attention? How do we help scale some of these approaches? And then as a heads up to the audience after we get wisdom from Joan, we'll go to the floor with some Q&A.

MS. LOMBARDI: Well, I think the wisdom is already in the community. You know, there is a movement out there to focus on, at least on the young children side. I think what you're talking about is going on in Philadelphia and in Pittsburgh, something about Pennsylvania.

I think is happening. We need playful policymakers, I think, and I -- this is an area that I think they can get excited about, that may be more playful and joyful and therefore lead to policy change.

That's, I think our hope.

And but we have to be intentional about it. We have to get them involved. But we have to get parents involved. And I think what you're doing to involve parents in the simplest way to help design, create and react to what we're -- the urban planners are doing, I think it's going to be critical to changing policy.

As you mentioned, I've been in the field for many decades. I -- but I am really now focused more and more on the resources that we need to really deliver on the promise that we've made to young children. That we will be encouraging them at the early years so that they're -- they have a lifelong trajectory of health, learning and behavior.

But we're not going to do that without enough resources. And that is the key policy issue I think of the day. Early childhood has been financed from the federal level and the state level, we're starting to get more local resources. This is a way to make it visible, and to make those needs more apparent.

MS. WINTHROP: And I know, give us just a smattering before we go to the audience, I know that there's lots of issues that help children thrive in communities. And this is, you know, a particular approach that can really help their development and well-being. But what are some of the other issues we've talked about? Well, sending them out to play when there's terrible air to breathe, that isn't a good recipe. So, you know, what are some of the other issues and how do you think we should approach sort of this broader collaboration?

MS. LOMBARDI: I think we have to address these issues systemically. And that means children have a right to play, but they have a right to play in clean air, in fresh air. And what we're seeing around the world is exactly the opposite. When you have to test the quality of the air before you'll even let your children outside. When you can't drink the water in your own home.

So, we have to enjoin this issue of playful learning with an environmental movement, with a need for public housing, all the things that affect young children holistically, because this alone won't do it. It's more complex than that.

MS. WINTHROP: Great. So, let's go to some questions. We have a question right here. Two questions. We'll take these two and then come back to the panel and then take another set. And

please do introduce yourself.

MS. GOODWIN: Good morning. My name is Loretta Goodwin, I'm with the American Youth Policy Forum here in D.C. Two quick questions. For Kathy, I wonder if you can talk a little about student voice and listening to the young people. And I know you're primarily dealing with probably younger kids, but just a little bit more about how we're actually hearing from them, what they need.

And then on the policy side, what we do is put together learning events for policy makers, take them around and show them innovative practices. So, I'm curious when you say, playful policymakers, can you talk a little bit about ways that you think that we can get to that and showcasing for them, because I'd be interested in having more of a conversation with you about that.

MS. WINTHROP: Wonderful. So, a question for Kathy and then a question around how to create playful policymakers. There in the back here with the red sweater. Yes.

MS. MOHAMMED: Good morning. My name is Karima Mohammed, I am with Goddard Systems. My question is for Joan, surrounding policy. So, it's awesome to want to create fun policymakers or playful policymakers. But what areas of funding do you suggest that advocates target when reaching for dollars to fund Playful Learning Landscapes?

MS. WINTHROP: All right, Kathy, let's start with you. And we'll go straight down the panel.

MS. HIRSH-PASEK: All right. Well, first of all, thank you so much for asking your question. One of the things that we spent a lot of time doing in Playful Learning Landscapes is getting community voices. And those voices are really the whole gambit.

We first visit the community and say, what is it you're looking for? And we got pretty clear answers from community members. They wanted a place that was safe. They wanted a place that was beautiful. They asked us if it was possible to do something where their children might want to stay in their neighborhood, as opposed to flee it.

So, we pulled together from what they suggested, I mean the sciences as the science is, so but we can adapt that. It can look like anything and it can fit any cultural niche. And that's what's so exciting about Playful Learning Landscapes. It doesn't have just one cookie cutter form or shape. It really is adaptable.

Parkopolis, for example, is in Spanish, as well as in English and in Philadelphia I think what it was 13 percent of our population is now Latino. So, we're very conscious of that.

And these members of the community showed up, and I'm telling you nearly everyone. We had teenagers, we had older people in the community, we had younger kids in the community that showed up at our community meeting. And they gave us ideas about how to tweak what we were doing, and even made suggestions about how we could do it better. I love that.

And we listened to them, and we heard them. So, it's built into the design of how we move forward. And I know in the playful learning action network that we're putting together to try to reach out to communities that's a core feature.

The second is that one of the projects that we did in Philadelphia was also called Play Streets. And we did it with the school system as well. And it was amazing. It was with teenagers who were working with young kids.

Now, you might wonder, oh my god, recipe for disaster, right? No, the teens loved playing and we actually put them through training, just like you would a camp counselor. Okay.

So, these teens came to our training, they learned how to engage in playful learning. Did they do it perfectly? Probably not. But at least they had the training. And they felt like they had agency and worth over the summer with kids. It occupied their time and it occupied the kids time, and there was some place to go. So, it's one of the core features.

MS. WINTHROP: Great. Thanks. Joan, question on policy.

MS. LOMBARDI: Well, you know I had [inaudible] Kathy, thinking about how you're bringing the generation -- the generations together, teens working on behalf of young children giving them voice. I think that's all part of the policymaking. Yeah I'd like to see more intergenerational linkages.

We've got a lot of elder care who need also to be had -- be part of this playful learning. So, you know, I think it's bringing people together. Policymakers come where people come. And so have you got a gathering like that it attracts, I think, the interest of policymakers.

But honestly, I think it's a twofer. It's not only the children are learning, interacting with caregivers, but it's a portal to other issues. It's a doorway to talk about the fact that we need resources for better programming, for caregiver salaries, for better health care for children.

So, to me, it's both something for children, something for parents and families and communities, but a doorway to larger issues that also need to be talked about.

MS. WINTHROP: All right, how do we get playful policymakers? This is what everyone wants to know, Greg.

MR. BEHR: Yes. So, Kids Berg is also home to the Pittsburgh Steelers, and we have stolen all sorts of ideas from Philadelphia and AYPF and look, it's tried and true community organizing, right. Putting together publications like, if kids build a city and making sure those are widely distributed at institute, politic events held at the University of Pittsburgh or through the Pittsburgh Business Times.

It's -- during Remake Learning Days, mapping out the events by legislative district. And then organizing special tours for staff and policymakers to go see these spaces and places and experiences. It's a lot of just tried and true community organizing.

And when we think about Remake Learning Days, yes part of the goal is about supporting parents, families and caregivers and helping them understand how they can support the children in their lives. But it's also about building parent demand.

So, when those parents go to a school board meeting, or a meeting with legislators, or writing op eds, or letters to the editor, they're asking questions like, why don't we have this in our neighborhood? Well, couldn't we think about this differently?

And the exact money, you go to the Department of Public Works, you go to parks and rec, you think about those human services contracts without a school time organizations. There are all sorts of creative ways to use existing public dollars to say nothing of corporate or philanthropic dollars to make these things happen.

MS. WINTHROP: Before we turn back to the audience for a question or two, Joan, you've -- you're a former policy maker. Is that -- were those all the strategies you needed? Do you have other strategies? You're -- you come prepackaged to be playful. We know that, but what other strategies would work on you or your colleagues?

MS. LOMBARDI: You know I think that what Greg said about making these things visible so that other neighborhoods see and get interested in that. I think the more we talk about it, the more we showcase other cities and other communities, and I would say, rural areas as well as cities, I think that

helps build a movement.

And it takes time. And it takes persistence. And it takes a bringing people together. This is a bipartisan issue. And I'm hoping that at the local level, at the state level, and at the federal level, this is something that we can all rally behind, and it's a unifying movement for the country.

MS. WINTHROP: Yes Kathy.

MS. HIRSH-PASEK: I just had one quick thing.

MS. WINTHROP: Yeah.

MS. HIRSH-PASEK: Which is, there's another piece to this I think. Which is that a lot of people want to be playful, but they're kind of afraid. And they don't see or know about the links between play and learning.

So, in New Hampshire, they just passed a bill that all Kindergartens next year must be playful learning Kindergartens. Go New Hampshire. And that's because they finally saw the links between playful learning and outcomes. And it's that kind of stuff that also makes a difference.

MS. WINTHROP: And just to do a quick double down on that, because your question about how do we get policymakers to see this? One of the big research initiatives we have here at the Center for Universal Education is really about the science of scaling proven ideas. And there's a whole bunch of research we've done around how to -- things that have been effective at that and we have this list of kind of 14 ingredients that more or less are key. And one of them is good use of evidence.

And what we have found is that very rigorous evidence is useful for the practitioners. We need to know what works, what doesn't work in design. It actually doesn't make always that big a difference for policymakers. The thing that you -- often gets them turned on is going, visiting, seeing for themselves and getting involved in an activity where they are -- they too learn through experiential learning. And they start, you know, doing a playful learning exercise and people are pointing out to them, how kids are learning. We found that that type of experiential learning is a different type of evidence, but equally powerful.

All right, questions. We have one here, okay. If you can be very rapid, we'll go one, two, three, four, four. And we'll have one minute responses from everybody. Short.

MR. SHORELAND: Michael Shoreland. I'm a pediatrician. I just want to emphasize the

importance of playful learning in mitigating stress. Stress is such a -- talk about a thing that's going to drive policymakers. There's a mental health crisis in this country, when we have a high suicide rate in 10, 11-year olds. And play is one of the best antidotes to t this kind of huge stress in our society.

MS. WINTHROP: Great. Thank you. You are a model citizen for questions. Yeah. So, we have one, two, we're going to get everybody, you just have to be really brief.

MS. MCADAMS: Hi, my name is Candy McAdams, and I'm a mother of a toddler here in D.C. And I'm also the global director for STEM Curriculum at Discovery Education. So, personally, I want to know if there's any efforts going on in DC that you could tell us about. And professionally I build curriculum for the country of Egypt. So, I'm wondering whether there's any efforts happening in the MENA region that you could share about, and if not quickly, in a panel maybe afterwards?

MS. WINTHROP: Absolutely. Great idea. And then we had, yes, the middle and then the last one here.

MR. PRESTON: Hi, my name's Steve Preston. I'm with the Parks and People Foundation in Baltimore. And you know, it's no new news that Baltimore had the most violent year last year on record. One question I have for you is, have you seen this work help reduce violence in your cities, particularly Philadelphia, Pittsburgh? I think Baltimore and Philadelphia are pretty comparable. Because ultimately, Greg, you talked about asking Rec and Parks, our Rec and Parks budget is 60 percent of what it was 50 years ago. And now we have to cut it five more percent to meet the Kerwin Commission. So, it's hard to tell policymakers about this stuff, even though I think it's a great idea with, you know, sort of violence at the top of everyone's mine.

MS. WINTHROP: The anxiety line runs global. Yes please.

MICHAEL: Have anyone involved police in the communities? I think that's a untapped resource for four or five different reasons.

MS. WINTHROP: Great. So, one minute, both answering the question and then any closing thoughts. We'll start this way. Greg, you first and we'll go the other way. Yeah.

MR. BEHR: Michael, I think about what you just said about the environment. My Pittsburgh colleague Bill Strickland says all the time, environment drives behavior. Look, there are ultimately 97 solutions to the types of things that we're discussing here. But creating that built

environment that contributes to a sensibility about the types of investments, the types of behaviors, the types of experiences we need to create for our children and their parents, families and caregivers, is something that will then contribute.

And I don't know that I can draw straight line between this work and violence reduction. I even -- I'm not a social scientist, if I pretended to be one I think that would be dangerous. But, I do know, and I know enough from qualitative and quantitative research that it contributes to an environment that is fundamentally different and suggests different types of investments in places like the DC or Egypt that I'll defer to my other colleagues about.

MS. WINTHROP: Great. Thank you. Joan.

MS. LOMBARDI: Well, I want to also reinforce what you said, Michael about stress. I mean, one of the more upsetting things that I see happening across the country is when they're reducing outside play time for children in the early grades, which is the exact opposite of what they should be doing. So, I'm heartened by New Hampshire.

But I think we have to send that message. Children are stressed even very young children we're seeing stressed. And this is part of the answer to reducing that stress level. We should have a conversation later about the main region. And we can talk more about interests there.

And, you know, I think one of the points that you're bringing up about violence and violence reduction, too many guns in too many cities in the United States, is that this is a hopeful sign in those communities. Again, I don't know how direct the evidence is. I'll turn to Kathy for that. But this is a way to answer that. But we have to make those neighborhoods safe, otherwise parents aren't going to be willing to bring those -- their children to play in these outside spaces. And so these bigger issues go hand in hand with this, including controlling the number of guns we have across the United States.

MS. WINTHROP: Thank you, Joan. Okay Kathy. One minute.

MS. HIRSH-PASEK: Okay one minute. Thank you, Michael Yasmine. I just wanted to introduce him because he's the person who brought you the prescription for play that many of you might have heard of last year. So, absolutely, on stress reduction.

I don't know of anything in DC or Egypt. But I will tell you that there's a lot of interest from around the country and around the world. I think there's maybe 10, 15 cities in the U.S. and maybe 10

from around the world. We can talk later about what they are. But please talk to us.

And on violence. What we have right now in evidence is the proof of concept. What we need to do next I think is to try to get enough of these things in a neighborhood where you can show the dose and density.

I think another really exciting place to go next is to work in childcare centers, so that you have sort of a central core and can put a number of these elements. And in low income housing, where you can literally change the environment for people to make it a kinder, gentler environment.

I will say this though, Urban Thinkscape has now been up for two and a half years in an area of Philadelphia, which is a very poor city as many of you know, in an area where you would normally see tons of graffiti, and it should have been ruined by now.

But because of the community involvement, because the community owns this, not us, there's not a drop of graffiti anywhere. And the neighborhood is proud of it, and wants to keep it going.

That seems to me to be precisely what we need to do so that it can be repurposed for the people who help us think through what it should look like. And I love the idea of working with the police as well back.

MS. WINTHROP: Great, thank you so much. I would just say enough in final closing that from our -- where we set up Brookings, which is sort of the bird's eye view, and we -- our role in all of this is to drive policy related research, to map what's happening to help bring people together, spark a movement, we're seeing that actually there's a growing ecosystem of organizations that our communities can call, parks departments can call, you can call and ask about, you know, doing curriculum in Egypt.

And some of them are existing organizations like the Project for Public Spaces and Kaboom, and Urban 95 that are leaning in on the learning sciences and the Playful Learning Landscape approaches and bringing them into their work. Some of them are new organizations like the one Kathy referenced the Playful Learning Landscape Action Network which is just getting going.

So, we're very encouraged that there's groups out there, a growing ecosystem that is developing. And we really look forward to having everyone stay in touch.

And lastly, Kathy, what was that vocabulary word? And what does it mean? Am I the only one who has no idea?

MS. HIRSH-PASEK: Don't you want to know? I believe it's an alignment of planets or something like that. But the point is, you can learn it --

MS. WINTHROP: We know the point.

MS. HIRSH-PASEK: -- a million times and you still forget it, because it doesn't relate to anything.

MS. WINTHROP: All right. Thank you very much.

MS. VEY: Good morning everyone. And thank you so much for being here. We've been prepping for this for some time. So, it's just really, really exciting to see so many of you here this morning who are interested in this kind of work.

So, I'm Jennifer Vey, I'm a Senior Fellow here at the Metropolitan Policy Program at Brookings and I'm the Director of the Anne T. and Robert Bass Center for Transformative Placemaking, which we launched back in November of 2018. So, we're relatively new here in Brookings.

So, the mission of the center is to inspire public and private and civic sector leaders to make transformative place investments that help generate widespread social and economic benefits. And so I think you can already see from the conversation we've had so far how this really aligns with this work around Playful Learning Landscapes.

And so actually, this is pretty unique. It's a really unique partnership that brings this -- the Bass Center's expertise on placemaking and inclusive economic development, together with the expertise of the Center for Universal Education on the learning sciences. With the goal, really, as you've heard of transforming our everyday places into learning opportunities for families and for children.

So, the last panel focused a fair bit on the -- on those early learning aspects of play and playful learning. And what we're going to do here is kind of shift gears just a little bit to really start to dig into how these efforts and innovation -- interventions for -- with Playful Learning Landscapes can help revitalize public spaces, can help generate community ownership with -- that Kathy mentioned, at Pride, can spur social interaction both among kids and their caregivers, but also among adults by bringing them together in these spaces. And ultimately, really just create more vibrant and family friendly communities.

So, first, I'm going to introduce our panelists, and then we're going to get going into what I think is going to be a pretty robust discussion.

So, I have here on my left Nidhi Gulati, who is a senior director for programs and projects at Project for Public Spaces in New York City. She is a trained architect and an urban researcher, who has been with PPS since about 2013. And in that capacity, and you'll get to hear a little bit more about this today, she's worked on more than 20 projects across the U.S. and abroad.

We have Elliot Weinbaum who's the program -- a Program Director at the William Penn Foundation, where he works with a team that supports efforts to improve teaching and learning from early childhood through high school. And William Penn, again is a supporter of QE and this event too. Thank you, Elliot.

And Sarah Siplak is the Director of the Playful Pittsburgh Collaborative, which is a group of organizations that are dedicated to advancing the importance of play in the lives of children, families and communities in the Pittsburgh region. And she and her husband are also in a band called Wreckids, which I wish that I could somehow weave that into this conversation here. So, if you could find a way to work it in please do so, because I'm dying to know and we'll might have to talk later.

All right. So, at the end of the presentation, of Helen's presentation, she quoted the Mayor Enrique Pena Llosa, of Bogota who said, children are kind of indicator species. if we build a successful city four children, we will have a successful city for all people.

So, I'm going to start with Sarah. Can you give us some examples of how the Playful Pittsburgh Collaborative is working to make Pittsburgh a successful city for children? And how might the ambitions of Playful Learning Landscapes really fit into that work that you're doing?

MS. SIPLAK: Absolutely. Thank you so much. And thank you for having us here from Pittsburgh. We're -- well specifically, I'm very excited to be learning about everything that's going on. And it's really going to help us moving forward thinking about how we do the work that we do.

So, the Playful Pittsburgh Collaborative has been around for around eight years. And it started really as kind of a brainchild between three entities, which I think speaks so much to this idea of placemaking and collaboration, hence the name the collaborative.

So, Trying Together which is actually where my work is housed, the work of the Playful Pittsburgh Collaborative is house is an early childhood advocacy organization. So, Cara Menlo who's our executive director, it was her conversation with the director of education at the Carnegie Museum of Art.

And then the director of education at the Pittsburgh Parks Conservancy.

So, really these three entities who had their own buckets of work that they were doing, who came together, had this conversation around play through the work that they were doing. And this idea was born to kind of foster this idea of play within a community and how there are so many different organizations that have different work that they are doing and how they all really relate to play and how -- and community building.

And so the organization has grown significantly over the years. We're up to about 20 -- over 20 organizations that all do very -- varying degrees of work of -- within their communities. And so we come together to advocate for play, to really, our mission is really to raise awareness, to educate decision makers and to model and inspire. So, we really have done a lot of work in bringing communities together through an annual ultimate play day, which really came out of this idea of the ultimate block party.

How can we bring communities together and organizations that are already working within those communities on behalf of families and children. And have a day of play that focuses on why play is important and why caregiver child interaction is so important in the world of play.

And then we really the big project that I think ties so nicely into what we're talking about today is the concept of the Hazelwood Play trail. Hazelwood is a community in Pittsburgh that was identified as one neighborhood that was a play desert. And so when Kaboom came in, many years ago to talk about this -- or to actually implement putting playgrounds into I think it was 10 communities originally, but really the play collaborative came together and there was this mindset of how can we think about building community and play, so that doesn't have to be based specifically on building playgrounds. How can we build a community that is playful and that thinks about play along the way, and how we are -- how our lives are shaped by play.

And so this concept is a work in progress. And it's something that we are hoping to learn more about as we move forward on how we can replicate this in other communities and help communities think about why play is important and how it can change how they view their own community and their own neighborhoods.

And so much of what was discussed on this first panel, really brought to mind the work that we've been doing in Hazelwood, including bringing in, I think he left, but the gentleman you asked

about police officers. They have a chess program that they do, the Pittsburgh police. And so we've partnered with them to do different work in the community.

And so really this idea of how can we bring all these different entities together. Our -- the member organizations ranged from Age Friendly Greater Pittsburgh, which works with the aging population, All for All, which is an immigrant and refugee advocacy organization. They all are at the table at the play collaborative because they inherently understand why play is important, how play as a connector, and how it can build -- help to build community.

So, we are really looking at how can we build play through the existing organizations that are in our city in Pittsburgh, and really Playful Learning Landscapes opens up the door for us to think a little bit more about how we can learn from what is happening. What are the outcomes that are happening through the work that we're doing.

It's not something that we have had the resources to really do up to this point. And now we're starting to think about well, if we want to grow this, if we want this to grow and change we need to find partners out there who are already doing this work and can -- who can help us define this a little bit more.

MS. VEY: Great. All right, thanks so much, Sarah. That was really, really helpful. Elliot, we're going to move across the state. Can you talk about Philadelphia's efforts to create a more playful city and give some specific examples of some the projects that the William Penn Foundation has funded. And as you're thinking about this and understanding that both are important, to what extent are the projects that you've been involved in about play versus playful learning and what is that kind of spectrum look like?

MR. WEINBAUM: Sure. Yeah. Thanks, Jen. So, for us, this Playful Learning Initiative fits within a broader set of strategies, right. We are looking at supporting teachers, we are looking at supporting parents and other adult family members in a variety of ways.

And to John’s point, ensuring that the resources are there to make the kinds of public investments that are needed in all of these spaces to support 2 goals in particular that the foundation has. One is kindergarten readiness and the other is third grade reading. So, for us, the learning, defined broadly to Kathy’s point, kindergarten readiness, it includes vocabulary. It includes letter recognition, but

it also includes what you want to call social, emotional skills, 21st century skills, the 6 C's, et cetera. So, we're constantly thinking about the role of playful learning in building those skills.

I would say the investments that we and the others in the City have been making fall into maybe 3 categories. They are the big infrastructure investments. You saw urban thinkscaping, a key example of that, some of the infrastructure that the library has been creating within branches. Those are large structural investments that really do stimulate and encourage the kinds of interaction that build the brain, build vocabulary, build a whole range of skills. So, that's one big category.

Another is a lighter touch, some of the signage you saw in supermarket speak and talk it up that exists in supermarkets, that exists in laundromats, that exists in public spaces. That's a lighter touch that also demonstrates or encourages the kinds of interaction that we know is necessary. The third is programing, animating public spaces with activities that are assessible to all and engage young children and often their families in learning opportunities that are fun, something that the city has called play streets, for example. Kathy referenced earlier hiring teenagers during the summer, closing streets and creating activities that have a basis in science and early learning is one example. Also, involve the Police Athletic League in that, in the earlier question along with free library branches, Boys and Girls Clubs and others to build the community around that playful work.

Recently, I learned from Lee-Jen Wei who is at Harvard and at Simple Interactions Institute this essential question right? How does this fill in the blank policy installation program practice help to encourage, enrich and empower human interaction around and with children? Right? So, that's sort of the guiding question for us in many of our investments. How do we encourage, enrich and empower that interaction that we know is so important for learning?

MS. VEY: Great. So you talked about activating public spaces, and certainly a project for public spaces has done a lot of that over the years, working in and importantly with communities and with neighborhoods across the globe on projects to re-imagine and re-invent public spaces with really a focus on improving physical and social and emotional and ecological health and well-being of communities. So, Nidhi, can you talk about how the community engagement piece is really central to your work and how that approach aligns with the mission and the values of Playful Learning Landscapes.

MS. GULATI: Right. Absolutely. First of all, thank you, everyone. Talk about imposter

syndrome. I'm going to take a second. For those of you who don't know Project for Public Spaces, we are a planning and design non-profit. We are based in New York City. We've been in existence for 43 years. As a non-profit, our mission is to create a world where every person has a say in how their public spaces are designed with a direct through line to how their community gets strengthened.

So, with that in mind, we believe very strongly that public spaces that are created with and for the communities' unique needs are in fact then unique and that they then lend themselves to tremendous benefits to the social, physical and economic sort of capital of the community. So, with that in mind, every project that we work on has a very strong community engagement component to it, because what better way to understand what is it that makes that community unique and what are their unique opportunities and challenges, then to go and ask that community and try to understand with them what it is that makes them unique. So, we try to do that through all the projects that we work on. We always modify our approach for community engagement, understanding the level of access that that community has, and the unique ways in which the community wants to be engaged because not everybody likes that sit-down meeting, not everybody likes to have a focus group or an interview and things like that. So, understanding the unique needs and access that people have to information, to community engagement and responding with the community engagement strategy that reflects those needs. The benefit of that, there are many, as you pointed out. We get public spaces that are unique. We get communities that are engaged. We get the opportunity to build stewardship and ownership from the very beginning. So, in alignment with Playful Learning Landscapes, that is the opportunity to kind of get the new young people and citizens of the world involved and get them really to be attached to that space, become stewards of the space, and things like that, but also at least from my personal point of view, I think we have a tremendous return in tolerance in the future. We are in 2020, where we have terrible inequities in the world; we have incredible divides. So how do we create those bridges between people from different walks of life? Public spaces give us really that common ground where those bridges can be built where tolerance can be built. The flip side of that is we could create a space that doesn't account for the community's unique needs. It can be as pretty as possible, as dynamic as possible, but it risks creating that other ring, who is it for? It risks creating distrust in our public processes associated with planning and it risks basically an atmosphere that is not for the community that's there. So, community engagement is

very important to our work. We try to customize the approach as possible to get customized results. I see that very prominently aligned with Playful Learning Landscapes because our world is getting more urban. The number of kids growing up in cities is going to be more and more. So, that just basically means in percentages, the percentage of the community that is going to be children and their caregivers is going to be larger. We will not be able to design public spaces with the community by kind of leaving out a third or more of that community. So, I'm very excited.

MS. VEY: Great. Thanks. So, Sarah, at the end of your comments, you started to raise a little bit the issue around measurement and outcomes and I want to pivot to really delve into that a little bit. It certainly came up in some of the questions at the end too that if we want to be able to scale some of this work, we want to be able to prove that it works, and I think works in many, many different ways. So, as you heard from Helen and you heard on the last panel, we know something about the evidence from the installations and the efforts to date around caregiver interaction, around work spoken in terms of stem and literacy and vocabulary, but we probably know a little bit less around those neighborhood level impacts, those community level impacts. So, maybe start with Elliott and then pass it on to Nidhi and Sarah. How can we really go about measuring those neighborhood level impacts? What should we be measuring? What's most important? Issues around crime came up or stress came up. Valuation and spaces, all sorts of things that we can be measuring. What's most appropriate to be measuring and how do we do so in a way that really shows that beyond just the learning aspects, there's a whole other range of important outcomes that can come out of this work?

MR. WEINBAUM: Yeah, I would say we have been mostly focused on the change in that adult child interaction. That has been the outcome goal, if you will, of much of this work. The evaluation that has happened at the site level has been very compelling. The increases in both quantity and quality of interaction variation of broader vocabulary, the kinds of collaboration and critical thinking that you want to see in interaction has been evident and documented at the sites. I think there is a question about the, you could call it durability or transferability of those behaviors into other settings. That's also part of our goal. Not that it only happens at Urban Thinkscape or in the supermarket when prompted by the sign, but that it happens also when children and their caretakers go home or they're in other places in their communities when infrastructure or programming don't exist. I think we need to know a bit more about

that first. So, that's another frontier in research that's worthy of investigation, this question of transferability.

The question of neighborhood effects is another sort of frontier that we're trying to advance. Challenging for two reasons. I think that one is we don't yet have neighborhoods that have sufficient density, as Kathy mentioned, of opportunities so that families are meeting these things in lots of places and in sufficient number that you would expect to see big change at the neighborhood level. So, that's one change. The other is it's difficult to measure behavior change anyway on a broad level, and particular behaviors you're looking for to happen in the home, for example, right to that question to the degree to which this transfers into the home. So, those are some challenges in doing this, but I think there are also some emerging opportunities. We're in conversation currently, for example, with a number of community groups who are really interested in creating multiple opportunities within their small neighborhoods to create that kind of density of experience. So evaluating that is one.

Kaboom is in the process of doing a Playful Learning challenge in Philadelphia and will create somewhere between 15 and 20 installations in neighborhoods around the city. There is the possibility that those exist in sufficient density as well to begin to measure neighborhood effects. Finally, we're looking at creating a city-wide survey of adult child interactions with the hopes that it will be able to drill down deeply enough at the neighborhood level to understand and examine relationships between the patterns in adult child interactions and the other investments that have been made in infrastructure other Playful Learning Opportunities by neighborhood or community. So, I think some work to come on all of that, but it hasn't happened yet.

MS. VEY: Nidhi, so, of course, Project for Public Spaces does a lot of work in those spaces and presumably, tries to focus on how do we know what all these varying efforts, knowing they very significantly across plays, how do we know they're working? What works best? How can you take some of those learnings and transfer that into the Playful Learning landscapes kind of efforts to understand the extent to which they're having these neighborhood level impacts?

MS. GULATI: Right. So, I will go to our kind of typical project for public spaces approach to that, is that we look to combine the qualitative data with the quantitative data. So, like, really thinking about in a narrative way, in a story telling manner, what are some of the qualitative benefits that people

may be having that we may still be struggling to measure and quantify because matrixes are being developed, but as we do, let's look to some of the more qualitative benefits. Then thinking about learning beyond the typical learning outcomes that people anticipate. So, like thinking about community benefits, social benefits, social cognition, cultural cognition, just being how do you measure that kids that are growing up around these environments are not othering other people based on differences and like seeing the world more as a cohesive, diverse landscape. So, really tuning into those social indicators, really tuning into those community indicators is where I would hope to go, and again, we're in a roomful of people who understand matrixes and looking for evidence for other stuff, I'm sure we'll be able to get to some of those matrixes as well, but I would, like I said, like to go beyond learning and go beyond kids, especially focusing on caregivers, how their social indicators and their community life and their kind of achievements as they continue to grow as parents themselves, looking into those matrixes as well.

MS. VEY: Great. Is there anything to add on this issue of measurement and outcomes?

MS. SIPLAK: You know, as you both were thinking, it made me think of how, you know, I mentioned how we haven't really done the research or analysis behind measuring the outcomes. However, in doing this work on the ground, there is a very noticeable outcome which is pride of ownership, joy in playing, and this is something that we have 100 percent noticed through the work that we've done without doing any research behind it or having anyone sit there to measure what's happening. In interacting with the community members in Hazelwood where we're doing this work, there has been a significant shift. One of the play stops that we helped to create was Dylamato's Market is this small local grocery store. There is another term in communities called a food desert. Hazelwood did not have a grocery store. Anyway, there is a small grocery store. We did a play installation. I didn't personally, but we helped put a play installation on the front of the building. In speaking with Diane, the business owner, she said it has just brought so much joy to me and to our community members. They're playing with these. I'm happy to tell you more about it. Magnetic fruit that goes on the design on the front of the building, it's encouraging interaction between the caregivers and the people who are coming to shop in the grocery store. They're playing as they come in.

Even in one of the green spaces that we helped to convert from a vacant lot to a play space for teens, it was vandalized very early on, right after we had a bunch of plantings put in. Within a week, a

bunch of kids came in, ripped all the plants out and were playing football with it. It broke my heart. However, the community really stepped up. It brought me to tears to think about how they took ownership of this space because it was in their community. They collected the plants for me. We were able to put them all back in the ground. They're still, hopefully, living, fingers crossed, but it really showed to me that there is buy-in from the community because this is doing something for them and for the community. They feel ownership for it. They helped design it. They helped build it and they are using it. For me, that is a measurable outcome, even though there hasn't been any documentation necessarily of it. It's more just an interacting.

MS. GULATI: I would like to add that in addition to creative storytelling, also leaning to social media and the internet where possible, keeping in mind that not everybody has access to the accounts and things like that, but wherever possible, trying to capture what people are already putting out there. They're giving them that Instagram moment or whatever, and then looking to those sort of softer measures as well, evidence wherever possible to kind of cohesively create a much stronger narrative and a better story.

MR. WEINBAUM: If I could just add one more thing, as we get smarter about this, the installations of the programming are really increasingly designed with specific learning outcomes in mind. Right? So, if it's an art focus or a science focus, either activity or installation, we're able to look at the extent to which children have assimilated those concepts after experiencing that installation or program. Increasingly, we have work being done in partnership with elementary schools, so that the playgrounds that are being redesigned or rebuilt outside that school are being designed to complement specific learning objectives of the schools. So, we will be watching to see whether those learning outcomes that are being measured at the school are improving at a higher rate thanks to the investment in these playful learning spaces that are being created. So, not necessarily the neighborhood level yet, but at least at an institutional level.

MS. VEY: So, as we, at Brookings are thinking about we'll be really focused on building these networks and scaling this work, but we also know that it's not easy. I think everybody here is enthusiastic about this idea. We know something about how it works and we think it probably should be in more places and be adopted more widely, but there are challenges. Sarah, when we talked a few days

ago prior to the panel, you raised some of this in your comments, saying, yeah, it's been a bit of a long road on some of these projects. Can you tell us sort of more about those challenges and what you found some of the barriers have been and how you have overcome them?

MS. SIPLAK: Sure. Absolutely. Actually this brings to mind a conversation that Nidhi and I were having earlier about the timeline for making this change. I think you said it's 10 to 15 years oftentimes to see change come about. I think the work of the play collaborative has been around for a long time.

Really pushing forward the effort of the Hazelwood play trail, while the idea is much older, the actual work really began about 2 years ago. So, one of the big projects that we had undertaken was to convert this vacant lot, which was called a tot lot. It was a small playground built in the 30's, decommissioned and was an abandoned parking lot for a couple of decades. So, we had early on these conversations with City Planning and the Department of Public Works and the City of Pittsburgh about how to transform these spaces and there was sort of this handshake agreement about what was going to happen with this City owned property. So, we worked with a bunch of teens in the community to design it and brought in a design firm to actually do the design work. In my mind, I stepped in this role and said, this is great. We've got the design drawings up. We have the agreement from the City. We're going to go ahead and move forward and turn this into a really beautiful event space. What happened was at the City level, there were some changes in the structure of the government in that DPW, the Department of Public Works was split into the Department of Public Works and the Department of Mobility and Infrastructure. I have no background in any of this. I am an on the ground, do the programming kind of person, and I stepped in. We had conversations about okay, we need to raise the surface of the parking lot and re-asphalt it. Now, that doesn't fall under DPW. That falls under DMI. So, it started this whole other conversation with another director and with a new entity that I had not had any interaction with who were not aware of this program. So, it was a really interesting learning curve that sometimes these things take time. It was very frustrating from my level. I was going to community meetings and talking about what was going to be happening and just kept hitting red tape after red tape, but I did find if you just keep going forward and you just keep talking to people, it can get done, but often, especially with some of the continuing work that we've done along the play trail, it is finding the spaces to do the work and then

understanding what needs to be put in place for sustainability. So, the example that I gave of the grocery store, the woman who owns the market, it's not her building. So, while she agreed to do the programing or have the installation put up, we had to then approach the building owner and talk to him about what we were going to do with the space. A couple of the other locations that we had chosen with the community, it turned out that they did not own the space themselves and they could not make that decision. So, while we wanted to be putting play along the way installations in the public realm, I got very gung-ho about bus stops and things like that. Those are things that you –- there are barriers that are in place for a good reason. I mean, when you are putting art out in the public realm, you have to be wary of what that art is saying and how that is going to effect people, but I think for us one of the biggest challenges was really understanding how to reach out to the right entities to make the correct connections in order to make the work happen. Then the other thing is this idea of ownership, of the public feeling ownership. So, if something does happen, if there is vandalism that is occurring, that they are letting you know and that there are steps that are in place that help overcome that and work with that. I really have found that involving the community has made all of the difference because they want that space to be successful.

MS. VEY: So, you raised a lot of issues there around working with public entities and turn over staff, working with different agencies at different points of the process. You raised issues around ownership. When we talk about installation in the public round, particularly, they are often going to be in public spaces or non-public spaces that are owned by somebody else. How do you deal with that? Then you talk about other issues around ownership, which is partly around community ownership and maintenance over time. So, Elliot and Nidhi, in your own work, have you run into similar barriers and how have you dealt with them?

MS. GULATI: I'll go first. Always, barriers, obviously. Public spaces, there are like a bajillion entities that own all the small pieces of the things. In the work that we do, we try to really hit hard on the point that let's first define who the community is and who the priority audiences in that community are, priority obviously given to the more vulnerable, the more priority audience that becomes. For children, children in marginalized communities, children in low income communities, they kind of fit at the top of that priority audience. Really understanding whose life it is that needs to be transformed with them is the first order of business. Once that community is defined, to kind of get to the vision of change, like

starting to visualize change. By having a vision, it helps you be an advocate, because advocacy, by God, is hard and it takes a while. Arming yourself with that vision and that can be used as an advocacy tool, but also visions are more flexible than physical designs and things. So, continuing to lean into that flexibility and then looking for allies in the private and the public realm all at the same time because I know that our public entities are a little bit trapped in their silos and we are slowly getting out of that, but looking at unlikely allies in the public and private realm, and also understanding that social innovation really will happen at the intersection of the three sectors, the public, the private and the for purpose sector which many of us are a part of. So, continuing to think about how can we overlay all those three sectors together would be what would help us, and that is what has helped places, but again, it does take a while. It does take a lot of silo busting, but keeping in mind that priority audience, that vision that they had, and staying flexible and involved with that missions is what has allowed our communities, not us, because again, our communities do the work, has allowed them to be able to make the change.

MS. VEY: And, Elliot, I want to put a final point on something that you just said. When we talk about public, private, civic sectors, you know part of this is getting them bought in and bought into that vision so that they will be more supportive and hopefully erecting fewer barriers in the process. So, this whole idea about Playful Learning Landscapes is this fusion, right, between learning and play and public spaces. So, Elliot, to what extent have you found that that fusion, particularly that integration of the learning into play where maybe it's harder to get the environments of limited resources, if it's harder to get that support over play alone, how much of that infusion of the learning really helped get more buy-in, more traction among Philadelphia leaders where you can get some of these projects done.

MR. WEINBAUM: I think that the integration, the intersectionality of that has been essential to the traction that it's gotten, the momentum it's gotten in Philadelphia, because in some ways it's attached itself to other efforts that already have momentum. I think that's a key. So, we have a local campaign for grade level reading and I know later Ralph Smith will talk a little bit about that. We call it Read by Fourth in Philadelphia. It's all about engaging adults and children in order to increase reading proficiency. As they think about opportunities to do that, playful learning, the learning piece, fits right in with that larger effort that's already involving 100 organizations across the city. So, this layered on top of that has given it great momentum. Similarly, as communities think about revitalizing and restoring play

opportunities for kids, which is an area that has suffered from terrible underinvestment for decades in Philadelphia, they are really looking to maximize the benefits that kids can get from those new investments that are coming in. So, the new play spaces, yes, it can be fun for kids. Yes, it can give them physical exercise and opportunity. It can also build their early learning skills. Communities get that. Neighborhood groups understand that this is an added advantage for a minimal initial investment that can be offered to their children and they have really embraced it. We like to use super simple examples. If you want a sliding board and there's going to be a ladder, put numbers next to each of those steps or put colors on each of those steps, and you spark conversation among children or between children and adults that would not have happened otherwise if those very small subtle prompts weren't incorporated into the design. So, sharing that with community groups with city leaders has been really key. Look, it's no secret that early language and early literacy is a huge challenge in our cities and in Philadelphia that's definitely true. So, anything that can be done to move that needle forward while also meeting the other needs of community members and residents has been really embraces.

MS. VEY: This has really been great and we want to make sure that we leave some time for all of you to ask questions of our panel. So, Karen has the mic. Anyone? Point. We're going to start here.

MR. WILLIAMS: Thank you. Jerry Williams on the reimagination program. A quick question on the measurement. Have you done any measurement on the impact on the adults learning? We heard about the impact on the kids. What about the impact on the parents or the others involved in the learning process?

MR. WEINBAUM: I would just say that some of the evaluation work that we've done has included both observation rates change in adult behavior. So, that's sort of the best demonstration of adult learning. In some ways, it's the way they're interacting with their children. We've also done qualitative and survey work following some of the experiences, both programmatic and installation where the adults have shared their takeaways from that experience. So, that's some of the evidence that we have immerging from this work.

MS. VEY: We're going to do a couple at once. Let's see. We'll go here and then right behind. We'll go down the line on this side of the room.

SPEAKER: Thanks. Hi, I'm (inaudible) from Designing Cities Initiative. We've been working on a program called City For Kids and really looking at cities for the play space perspective of how do you design cities that work for children and caregivers, not only from safety but also from education. I know Kathy was a part of our advisory board and the publication that we just did. One of the challenges that we're facing now as we're really implementing some of these designs is that the data that we've been collecting and the measurement is very play spaced, whereas what you're really looking at in fact is the larger conversation. I'm curious if anyone here in the audience has any guidance or is running into similar issues when you're looking at a place and you're talking about social interactions taking place in a particular plaza or a public space, how does that relate to childhood development implement on a greater impact. If anyone can make that connection, please find me. I'm looking for answers here.

MS. VEY: Play space versus wider impacts.

SPEAKER: Hi. I'm (inaudible) from the SO Association of Children's Museums. We have your answers but representing more than 300 children's museums in a field that has been building these spaces for 120 years, and the talk about scale and this environment. There has been a lot of talk about relationship building, but I'm very interested in a very practical, any trends that people are aware of in practical matters around. Some of these challenges are also about codes and approvals for building codes and permitting. These are the kinds of things that our built environment struggle with all the time. Are you a playground? Are you a public open space? Is a water feature a pool? Those are very specific conversations that are not child centered. So, I'm interested in conversations about how you make those conversations with your local officials child centered with these developments and to promote scale.

MS. VEY: Scaling and barriers around just codes and other practical matters. We'll take 1 more over here and then I'll turn it back over to the panel.

MR. BLOOM: Hello. I'm Tony Bloom with USAID. I'm curious where technology plays a role in this. I mean, I think of kids being isolated and you don't want that, but I also think about the crazy with Pokémon Go that got my kids out in the community. I'm just curious if you've seen appropriate uses of technology that weave its way within the Playful Learning Landscape vision that you have.

MS. VEY: Great.

MS. SIPLAK: So, I'll start. In terms of the codes and the mandates and planning manuals

and zoning, this is more a call out to all the advocates in the room and others who might be listening on our Twitter Wirtz. We need to be breaking down a lot of those barriers thinking about again how our civic agencies work and how they can be reformed is a cause that we all should be putting our weight behind. I personally getting more and more engaged in that. We need fewer agencies, but we do need an agency for public space that can kind of really talk about the priority audience that can act as a central body that brings a lot of the different agencies together. We've had these silos for far too long and in a time where in some ways conversation has become easy, in other ways, segmented, we need to be thinking about agencies that can actually allow for that seamless thinking just like seamlessly we experience the public realm. So kind of mimicking how we experience the public realm, our agency should be similar to that.

Another advocacy push – once again, I have the mic. So, I'll tell the world this is what we need to do, changing the perception of childhood wellbeing and like really decoupling that from the playground, because thinking about how do we create the interaction and joy that kids experience at the playground? How do we create that everywhere else in the city that they need to be? My mind immediately goes to kids being strapped in car seats and sitting behind. Until they get to that playground, not experiencing any joy or movement. How do we kind of change that perception and then how do we make the City play for adults? So, play for adults and interaction for kids everywhere else. About technology, I think my answer would be how do we make technology more communal. So, things that you can experience together instead of on a singular device, interactive larger screens that require more than one person to lay almost. That's kind of where we should be thinking about because one of the reasons that kids are so attached to their devices and the screens, there is nothing else to look at. So, how do we create that leverage technology for communal benefit and interaction hopefully, interaction with people who are slightly different from us.

MS. VEY: Yeah, get the adults out of their screens as well.

MS. GULATI: I want to add to the scalability and the overcoming the boundaries, the barriers that are in place. So, something that we have noticed is really getting in touch with your local council people, for one, has really been helpful for us, especially in Hazelwood. They can help push forth initiatives on your behalf. Really, it's about making those correct connections. Myself and a co-worker oversee a recess advocacy team and we look at recess policy on the one hand but also just recess in

general. Looking at all of the different states that are looking at recess and to tie this back in, it's about making the connection with the people who can push forth, whether that's caregivers and parents, educators, legislators, council people. They are the ones that can help you take the work that you're doing to the next level, help you rethink. If you are trying to work in a public space and there's all sorts of red tape, their community members are talking to them about what they want and why they want it. They're going to want to help you put forth something that is going to be fun and playful for the community. So, really, making those connections and making sure that the right people are hearing about the work that you're doing and understanding why it's important to them. I think even for the recess team, the legislator that we've been talking to, he has kids in school who were not experiencing recess. So, he has a vested interest in pushing for more play within schools.

MS. VEY: Quick last word by Elliot.

MR. WEINBAUM: Just I would commend Jenny Perlman Robinson's report too on this issue of scaling exactly. She calls it forging key alliances as being one of the essential challenges of bringing this to scale and we think about it in 3 ways. Rebecca sort of alluded it to this earlier. One is making the science available through those people who make the decisions about code and installations. Two is creating some existence proofs. Urban Thinks capes that you saw earlier played a key role in that. It's actually built on private land because of some of the code issues, but it is the existence proof that other people can come and see. Third is making the explicit goals of that organization or city department. So, we are sort of thinking about doing all 3 of those things at once in order to bring this to a greater scale.

MS. VEY: Thank you so much to all of you. I know this has been great. I know I learned a lot. I think you hopefully all learned a lot as well.

So, I'm going to move forward. I have the greatest pleasure to be able to introduce our keynote speaker as well for today, Frances Bronet. Frances became the Pratt Institute in York's 12th President in January of 2018. Before coming to Pratt, she served as the Senior Vice President and Provost at Illinois Institute of Technology in Chicago. She has held a lot of other university leadership roles along the way. For more than 2 decades, Bronet has been developing and publishing work on multi-disciplinary design curricula connecting fields like architecture and engineering and science and

technology, humanities, social sciences and the arts. She has received extensive funding for a lot of this work, has published widely on it. We're really just grateful for the opportunity to hear her discuss her innovative approaches and work around the connections between education and learning and place and design. So, please, let's give a warm welcome to Frances.

MS. BRONET: Thank you very much. Thank you to Helen and your entire team because I know it takes a thousand hands to make anything work. So, I really appreciate being here. I always, in my trajectory and my own journey, every time I come to a completely new audience, I think why didn't I know about that discipline. I probably would have been amongst you. I'm absolutely delighted to be here. Although you just heard that I'm a president, which is a university's chief executive officer responsible for the success of our students, our faculty, our leadership, my own research work actually sits in the domain of design, space and play. I'm going to present in two arenas.

One, in the lens of my early life. As a child, I was a first-generation latchkey kid in inner city Montreal, often out in the streets without a designated caregiver. So, the projects here cultivated an interest for me on that level. Two, I'll be describing the experimental work I've done with action artists, including children, that have deep parallels with Playful Learning Landscapes.

So, here we are at Pratt Institute. I'm very proud to say that Nidhi is actually a faculty member at Pratt Institutes. The very work that she does in looking at environments is part of our entire curriculum. I'm not actually going to talk about that, although I could spend much of the day on it. So, I'm from a family and neighborhood of working-class Holocaust survivor immigrants in urban Montreal. I grew up believing – I spent all of my time outside in the streets, and of course, it was Canada. I forgot the 7 months of winter where I played indoors at neighborhood house, a stripped-down set of rooms above a grocery store. Only last year, as I'm kind of going through what was my life like, I discovered that the place I hung out was, and I quote, "neighborhood house was set up to keep immigrant adolescents off the streets, assist their integration into the community, come back, a pervasive problem of juvenile delinquency, and serve as a social, educational, cultural, and recreational center for children in the area. So, apparently problems of delinquency for my group were disproportionate to my community's population, attributed to the substandard parenting of immigrant parents. Neighborhood house provided youth with a refuge to avert antisocial tendencies. It had a lending library, as well as art classes.

Membership included multiple first-generation communities. I had no idea it had dedicated case workers and staff who invested much time and energy there, recognizing their responsibility for shaping future citizens. What I knew is I went there after school with little obvious supervision. Dance was our common language. We had very limited resources. We depended on each other as friends, supporters, turf warriors, to be brave in the world. Fast forward many, many years. I had graduated from 2 professional schools. I am an engineer and an architect. I also have a business degree. I worked in practice, building moderate income housing, women centers, mixed use urban projects. I taught at night from tech programs with students of all ages, learning how to learn to do construction documents, to teaching design studios at Miquel. Indeed I would spend my future life working across boundaries.

I used physical projects to connect action artists, contractors, engineers, architects, musicians, designers. So, after grad school in architecture, as a faculty member at Rensselaer Polytechnic Institute, upstate New York, I was working with architecture students who, although making and building was part of their DNA, they did this at very small scales, different kind of scales than you were talking about a minute ago, and often abstracted. I saw my students didn't actually understand that what they were building in 8th scale drawings, little drawings, what it meant to full scale space or even little models. So, we started to design full scale installations, in order to extrapolate without drawings and models what it meant when you blew them up to human scale. It's not something we do in architecture schools. We do little models because we don't have the resources to build full scale all the time. Well, something happened along the way. My dance life entered the studio. That's how I cultured culturals. I was very comfortable in that arena. We began designing performance projects, wrapped around an abbreviated model of design build. The full-scale project is hands on. The shift from visual which is often what we are doing in architecture to bodily determination where collaboration creates mutual movement and students and performers refer to each other, very similar to the community-based work. There is very, very different learning that goes on when it moves from the visual to the visceral, from the drawing to the haptic. When we built these spaces in the school's studio, in abandoned stores in the City, we invited action artists to include in them. This included anyone from skateboarders to rogue running children. Rogue running children is what I think I was called, a rogue running child. The dancers and the athletes began to explore the potentials of space, seeing how we engage with each other in the space itself. They

would indeed be considered Playful Learning Landscapes, if we had any data on what learning actually occurred, but knowing what you are doing here, we could have had a whole other way of investigating what were the interactions? Did this offer opportunities otherwise impossible elsewhere? We were also transforming underutilized space. Let's see if I can make this video go.

SPEAKER (from video): The boy who swings from rope to horse, leaping back again to the swinging rope is learning by his eyes, muscles, joints, and by every sense organ he has to judge, to estimate, to know. The other 29 boys and girls in the gym are all as active as he, some of them in his immediate vicinity, but as he swings, he does not avoid. He swings where there is space, a very important distinction. In doing so, he threads his way among his 29 fellows. Using all his facilities, he is aware of the total situation of that gym, of his own swinging and of his fellows actions. IF the room were cleared and 29 boys and girls sat side by side silent while he swings, we should in effect be saying to him, to his legs, body, eyes, be as egotistical as you like. If the swinging boy actually wonders about his choice of where to swing, of where there is space, he will invariably miss it. Neither the contact improvisation dancer, nor the swinging boy, can afford to be wrong.

MS. BRONET: So these are everything we were doing here at some level was precarious. You might call it risky recreation, ultimately transformed into guided player performance through rehearsal and learning about each other's bodies. I love your language, adults initiated, child directed, community initiated, not much different than a choreographer, instructor, and the invitation to dancers to play and to communicate. In the next projects that I will describe, bearing a path and spill out, we constructed or evolved space.

The transgression of cutting through the floor. No theater will let you cut their floor. I've asked several times. They won't let you. I've got a chain saw. Can I cut your floor? So, the fact that you did that and got all that together, and the fact that every time you went down, it would probably be different and it probably would be an infinite number of days, not quite, but almost, that you could get from up to down or from down to up. Directionally it was interesting. Do you feel like if you could use this in space, like as a non-mover watching the movers, do you feel like you all of a sudden get transformed in terms of you aware, aware of you?

SPEAKER (from video): I think in this piece right here, I almost fell down when I was

downstairs. I was watching the thing and moving around. At one point somebody bumped into me and I actually grabbed onto them for support. I was transferring what I was doing onto what I was seeing, a dance move.

MS. BRONET: So evolved space, I call space in the making, generated by the movements of action artists. These projects act as pilots for longstanding space for ordinary inhabitation. So, in the proposals, dancers and architects offer an alternative to ready made space. Space in the making borrows from Bruno Latour's concept of ready-made science versus science in the making. Latour asks whether the profile of an experiment and its outcome will change based on its context. In our situation, context, in this case, the very players or inhabitants has an opportunity to change the space. So, space in the making sets up a model for designing where we don't have a predetermined set of anything, drawings, a way of assembling things or the way that people have to occupy it. This is a ready-made space that you're in. You walked in. You knew exactly what to do. You sat down. There isn't a lot of play in here. That means that any physical construction that you would make would not be based on a preconceived generic idea about the context, the project, the occupants. Space in the making allows designers to work intimately with the situation at hand and the design emerges from that specific and full scale and particular situation. It includes the physical and cultural context, interactions with the users.

Interestingly enough, I didn't know when to say this, but I looked at my drawing. This is bizarre. Okay? It just didn't enter my mind, but I did double Dutch skipping. I think about it now. You'll see with my work. What does double Dutch skipping do? It's so many things. It's finding the place where the space exists. You have to anticipate the space. It's not there yet. Those of you who play football know that you're always going to the open space. Of course, it has fundamental math in it, science, distance equals rate times time. When do I jump? When is the opening, not to mention the sin subtle (phonetic) curves that are there? Most importantly for me it was about the complex human interactions. When do you jump? Who is managing this? Who is talking? It is a lot of paying attention to the particular context. So, here is what the community would do, to actually design the creative landscapes, but would be redefined by the very movement of the people who may not be as predictable. Maybe a new group shows up. From different kinds of relationships to different kinds of bodies and proclivities. Both being a path and spill out demonstrate the extreme possibility of designing in movement and

creating through

the making where the space of construction and inhabitation can't be fully determined without that movement, without face to face interaction. They set up ambiguous liminal interactions.

So three conditions have to be met. One, the design and construction is based on what and who is there. Two, the space must emerge concurrently from that specific context. The way the dancers move, the container in which the elements are placed, while both the space and the dance irretrievably unfold. And three, even in the final performance which ultimately is crafted for an audience to look at, possibilities of how each audience member can view or understand the whole can be different.

Of course, the work that you see here is truly space in the making. A part of embodied learning where children are learning with their whole bodies. Our projects began with placing found objects in a space of rehearsal, and it didn't matter what we started with. So here we use materials we literally found in the street and in the alley to begin play in an abandoned store front. A sewer pipe and a piece of plywood transformed into a wheel's glass floor. How do we design space like a path that emerges over time like the trampling of bushes by human occupation? So, you know that when you crash through bushes, if you all crash through them, we'd actually have a path. We'd beat a path. But if we stopped doing it, that path would go away and it would close up. So this is always about how does this thing evolve over time. In our case, we looked at multiple kinds of materials. The vertical surface of the spandex registered the body and movement. Without the pressure of the dancer, the material reverted back to it's taut first condition.

So, in our case, we looked at multiple kinds of materials. The vertical surface of the spandex registered the body in movement. Without the pressure of the dancer, the material reverted back to its taut first condition. And when one dancer pushed in, the other would be pushed back.

Later on, we'll talk about a trampoline kind of punch the jump condition. Which is a term for a wrongly timed landing that propels two bodies into unexpected trajectories. This concept will emerge many times.

The rolling platforms operated in the most extreme way. When the dancers moved the platforms, they pushed into the standing audience and the spectators had to be conscious of where the platforms were and when. The onus was on the audience to move out of the way, otherwise they were going to get

hit. The audience was a part of the performance. Space was made by the audience moving.

When the dancers ran in one direction on the rolling glass floors, they are part of Newton's third law of physics. To every action this is an always an equal and opposite reaction. Hence, the performers move in one direction on a rolling platform, the the floors move in the opposite direction. That means an audience intently watching the performers and the dancers are running away from them might miss that the floor which is glass edged is on a collision course with their shins.

So, these projects clearly had us looking at how each can contribute to the making of space a context in a community. This was a continuum. There was no disjunction between how the bodies interact. How can we perform and thrive in constantly shifting ecosystems? How do we build trust, a shared language? How do we teach capacity for adaptive work?

Sarah Hedrin asked us to be a public -- she asks us, be a public amateur. Consent to learn in public outside of one's discipline. By the way, that is owning imposture syndrome. I just want to say. It never goes away. But if we say that we're working in domains that are not our own, then we are asking the same questions we ask our children to ask every day.

In spill out, so this is a great line by Herbert Simon if you don't know it. Everyone who designs who devises courses of action aimed at changing existing conditions into preferred ones. In spill out, we built a structure where the bodies were dependent upon each other to not be thrust out. It, in this case, was a vertical trampoline.

Each dancer had to be aware of the force and movement of each other dancer. Each performer had to be aware of the elasticity of the 10,000 bands that wrapped the structure. These spandex bands only had so much elastic capacity. And the elastic wall may have too taut or too loose with strands too far or too close. The dancer's engagement with the elements in full scale and real time showed the designers how dancers had to always relate to each other and to the structure.

In every iteration, the physical frameworks change as the dancers became more familiar with the elements and as the elements became more tuned to the bodies of both the performers and the body of each emerging phase. The goal was to have an installation that was both architecturally rigorous and stunning while allowing the dancers to have a myriad of ways to perform so that it always evolved. So, they could be viewed, inspired and supported by the installation.

And this goes back to the choreographer architect- initiated dancer directed. The dancers know their own bodies. They worked using their skills and the learning curve of the structure. And finally, the configuration was a 40-foot-long, 12-foot-high two and a half foot wide steel scaffold like structure covered with thousands of spandex drips. In a 19th century red brick gas holder building, 100 feet in diameter and 50 feet high.

So, it evolved. We started with a little structure covered in rubber bands, a surface doomed to snap and catch on skin and hair and deteriorate over time and light. All conditions that could have been the foundation of a very powerful performance but less likely to survive the normative demands of rehearsal overuse.

So, the final evolution revealed a number of ways to see, use and experience the performance. It could be seen as a solid when lit from outside in the earlier slides and the dancers were rendered invisible. Or it could be pulled apart, stretched, for the dancers to emerge or retreat.

Over a long period of time, the spandex became plastic losing some of its elasticity. And the dance itself had to shift, accommodating the material changes. And the dancers, of course, always have to be aware of how their bodies are interacting with the materials to take advantage of the fluxuations both subtle and dramatic. And when sealed inside, the light thrown from one end of the wall could create a complete and distinct set of performances from cast shadows on the cylindrical interior surface of the gas holder house.

(Video played)

Ultimately, the viewer could see the work multiple times and have a completely different experience each time. In fact, the dancers had a continuously different experience as well. One viewing may be concentrated only on the shadows, another could engage sections of the spandex wall, another could see the entire scaffold or there could be combinations of all of them.

It is unlikely that anyone could get it all at once. This is indeed the point. As a space in the making as opposed to readymade space, nothing could be seen at once. Both the dancers and the audience had multiple modes of experiencing the performance. That means when you're installing anything you want to make sure people come back over and over because the experience changes for them every single time.

Okay so you're going to have to go with me on this. These dancers are actually projecting their bodies against the spandex. And they could propel each other out if they're not paying attention to both the elastic and where the other person is located. So, they are actually dancing in sync so that it's really critical to be aware of the community on the wall.

In this case, as I mentioned, the elastic becomes plastic and yielding and then brittle and actually could break. You know like an elastic pair of old running shorts, the performance changed daily with less aggressive gestures, the bands yielded more readily. You had to know what your partner was doing. It was a felt knowing. How hard could you go by sensing the tension in the performance.

We took this another step. In every city I worked, I found the best local dance company. In Eugene, it was Danceability, a mixed abilities dance company. At the same time as I was -- I had two jobs. I was the Dean of the school but I was also doing this program. My day job, I was launching and adaptive athletes' section of our product design program. And the two programs looked at human ability and variability very differently.

One, like many prosthetic biomedical engineering programs, see the variability as an opportunity for a fix for therapy, for a cure. Danceability sees variability as a celebration of difference. This contested territory is the place we want to be. There is a tension between Sarah Hedrin's practical, functional use space efficient model versus the performative, the poetic, the uncertain.

So, in Wounded Warriors product design course, we took aspiring Paralympians and built prosthetics for them fixing the body. In fact, making them super human. In the dance don't leave me, we went back to the model of ultimately, we're all connected and depends on who shows up. And opportunity that Susan Segal of Mobility International calls an infiltration of difference.

In order to do the project in movement, it meant building it full scale and in real time. Hence, we work with whoever shows up for rehearsal, pushing that the dancers had to be there for every built experiment. The space and the project emerged from the specific context, the very people rehearsing and the particular objects or space we were playing with. While the spaces and the dance iteratively unfolded.

We officially met twice a week for our class in an abandoned warehouse. We were up, you know, there's a lot of abandoned warehouses in every town you can imagine. The dancers didn't

have rehearsals in between because it was very exhausting for them. As dancers with disabilities, we had to really program when they could be performing. But the architects met regularly because building actually takes much more time than moving your body. Now let's see if this will -- somehow this is not videotaping.

(Video played)

So, without a leg and missing a pelvis, Karen could fold up into a very small shape. The cubes that ultimately got designed got smaller and smaller. The height became a walker level for Karen, the interior, a small house. We anticipated applying our discoveries to the other occupants not fully understanding that most adults can't fold their bodies the way Karen could.

Our tests were movement driven. The cubes and how they were used were repeatedly reordered and their size and use redefined each time the dancers encountered them. In one seminole experiment, a few dancers stacked a set of cubes and then climbed into them. It became clear that top loading the cubes would cause them to fall over. One dancer close to the top felt the cubes wobble and cried out, don't leave me.

That became the basis for the section. The structure was only stable if the dancers held it together with their hands and by locating their bodies to shift the weight. This is real technology, by the way, of understanding forces through a structure. We seized the invention.

We spent the next weeks determining how high we could go and how thin the frames could be. By using their bodies as part of the architecture, the dancers had to constantly be evaluating how to use their bodies to stabilize the project. This type of construction is time consuming. It relies on continuous observation of the dancers by the architects, by continuous evaluation of the dancers of how their bodies are reacting to the elements and on rapid build out and prototyping between rehearsals. I wonder if this is our database.

But more significantly, the body can adapt much more quickly to the physical context than the physical context can adapt to us. This means the dancers can change a movement in a moment. And the constructors will have to set design and assembly times to accommodate that body shift. Time is critical and it may make more sense that many times for the body to rethink the movement than the environment to change.

The structure was only stable if the dancers held it together with their hands and by locating their bodies and shifting weight. How high could we go? The collective musculatures were totally part of the architecture. If you leave me, I will topple.

As the shapes became more unstable and unpredictable, the dancers paid more attention. They became more in sync with the environment that seemed to continually be under construction. The dancers had to adjust to the forces in the wood and the space was transformed by this careful shift.

These transient visceral environments are an immediate physical arena where mutual trust, understanding of each other, scale and community are omnipresent. If one element, one hand grip fails another hand muscle must compensate or the community is in danger. The overall dissolves. Bidding a path and don't leave me represent connections in the mapping of our physical and architectural bodies together.

If we can't feel the force that we exert on each other, sometimes by just leaning on your next door neighbor or through the vehicle of an unstable structure then there is failure. Success depends on both the individual and the community in respected relationships.

(Video played)

And now, I'd like to call Ralph Smith from the Campaign for Grade-Level Reading to the stage for closing remarks. Thank you.

MR. SMITH: Good morning. I was fully prepared to own the imposter title. Absolutely fully impaired to embrace it. And then I realized that actually I should embrace being a public amateur. And, you know, the legend of favors that brings me here has a whole lot to do with how much I owe Kathy. And she can collect for the next 10 years and I will still be ahead.

But what Kathy didn't tell me is that in the audience today would be the greatest provocateur I know and that's Barry Zuckerman. She didn't tell me that because it is truly intimidating to be any place having to look out and look at Barry Zuckerman. And those of you who don't know him, actually Barry I see you were elevated because you were called a gentleman earlier. I've never heard that but I assume that you appreciated it.

My task, first of all, to ask everybody to find this card. And trust me, I don't have a game for you. The organizers of today's event have a serious interest in continuing the conversation. And this

is not intended as a one off and they are inviting and encouraging everyone here to take seriously their invitation to share the question you would have asked had we more time. The comment you would have made. The issue that you believe that we left uncovered or under attended. And any critique or suggestions you may have about further work.

This is a really serious invitation so make good use of this card. And as you do so, I'm hoping that some of you will take seriously this aspiration to build a global movement. And because of that aspiration, look more critically at this commitment to find the evidence and to codify the elements.

Because in those two, there is a possibility that the potential for disruption could easily be lost. And so, whenever I hear, find the evidence and codify the elements, that tells me to be especially cautious, especially attentive and vigilant. Because those two run the potential of recreating what we have in losing the disruptive creativity that is the promise of this incipient and emerging movement.

You know, there is a sort of a transformative potential in this notion that we ought to acknowledge that children are hardwired for learning. And so, every time somebody says we need to get children ready to learn, you know, that's a sort of an oxymoron. That really is amusing if people didn't take it so seriously. Children are hardwired for learning.

The question is are we prepared to enable, encourage and expand the opportunity for learning. That's the challenge that this movement is taking on. And it's taking it on by looking at the larger environment, by looking at the built environment, by heartening back to the wonderful literature about third places. And recreating this notion that there are places and spaces where community happens. And in those places and spaces, we have this opportunity to promote a vastly enriched and expanded notion of learning.

And I know we are five minutes and 24 seconds past our promised time. And some of you may know I'm a lawyer and I was sitting down there saying lawyers speak in 40 minute sound bites so we've got another half hour to go. Let me cut to it.

You know, there really is something quite special here, this notion that you can close the gap between the science and the practice. This notion that place and learning are not independent. In fact, they are co-dependent and we need to acknowledge that.

But coming from the standpoint of the Campaign for Grade-Level Reading, and I really

appreciate the shout out, Elliot. There's one particular aspect of this that I'd like to lift up. You know, there are many of us who like children a whole lot more than we like adults. I'm among them, right. And when we commit learning to schools, we essentially commit learning to people who have chosen to spend their time with children and not adults. We have committed learning to a professional institution that is all about kids. And that is populated by people who share what a lot of us have, a deep suspicion of parents, especially low income parents.

And there are many of us if we really admit it believe that many of these parents are where they are because they've made bad choices and bad judgements on their own lives. And are not fully to be trusted to make good decisions for their children. And we build institutions to essentially mitigate the possibility that they'll mess up their kids because we can take care of them for 20 percent of the time.

By expanding the learning zone and the learning opportunity, we create the possibility that even as we seek to transform schools and make them more welcoming to parents and families. That we can have in communities' places and spaces where parents don't have to knock down the doors. In fact, they may not even have to knock on the doors. Where parents can go with their kids and can feel some sense of agency and can feel a sense of efficacy in dealing with their kids.

Spaces and places where we can practice what we're now coming to understand as relational health. And there's kind of an opportunity for an authentic practice. And places and spaces which if we do it right can shorten the century plus that Rebecca scared the hell out of us by saying it would take to close the gap.

We ought to be intentional about saying part of the reason why we're doing this is to increase the likelihood that as these children learn more, more about themselves and more about the world as they're embraced by stronger communities. That these children may, may have improved prospects of grasping that first rung on the ladder of the success sequence. And here at Brookings, we ought to have the success sequence in mind.

And we ought to be able to say loudly that if we do this right, these children should stand a better chance of graduating from high school. And they should stand a better chance of graduating from high school because they'll have a better chance of experiencing early school success. And they'll have a better chance for early school success because they'll have more interactive and joyful childhoods

in the company and in the care of their parents and of the communities in which they live.

That's the potential of this work and it seems to me it's a wonderful cause. It's a great opportunity and I just want to congratulate all the folks we heard here today and the folks who are involved in supporting this movement. This is great work. I am pleased to be in any way associated with it. I thank Kathy and Roberta for allowing me to tag along and I wish you well.

CERTIFICATE OF NOTARY PUBLIC

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Expires: November 30, 2020