

THE BROOKINGS INSTITUTION

WHY DOCTORS AND MAYORS WILL BE
THE NEXT PLAYFUL LEARNING ADVOCATES:

NEW EVIDENCE ON SUPPORTING CHILDREN'S EDUCATION AND DEVELOPMENT

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P R O C E E D I N G S

MS. WINTHROP: Good morning, everybody. I am Rebecca Winthrop. I am a senior fellow here at Brookings and the director of the Center for Universal Education. It's a real treat to have you all join us. We have a fantastic panel.

It's the day after Labor Day -- not quite. What are we, two days after Labor Day? Back to school, the world is back to school, certainly in our country. And what a good way to start off the back-to-school season with an event the title of which you all know, but we're talking about "Why Doctors and Mayors Will Be the Next Playful Learning Advocates" and "New Evidence to Support Children's Education and Development."

There's been a number of recent studies come out over the last couple weeks that we'll be talking about. I will kick off -- the way we're going to run it I'll kick off and frame a bit and we will have two of our panelists, Michael and Kathy, come up and share some of the evidence from those studies. And then we'll have a discussion and then open it up to Q&A for all of you before we close.

It's a real treat to welcome to the Brookings stage these four wonderful colleagues. I'll start our token male, Michael Yogman. (Laughter) You all have in-depth bios in your packets, so I'm not going to go through every last wonderful thing that they've done, but briefly, Michael is both a pediatrician and an academic. And actually all of our panelists straddle the sort of practitioner/academic line in some ways. He's the chief of the Division of Ambulatory Pediatrics at Mt. Auburn Hospital. He's also on the faculty of Harvard Medical School. And he also has been playing a leadership role in the Boston Children's Museum, formerly the chair of the board, now leading up the Advisory Board. And so will speak from a doctor and museum and sort of community engagement perspective.

Next to him we have Rosemarie Truglio, who is the senior vice president

of curriculum and content at Sesame Workshop. We have her in large part to thank for the wonderful programming that our kids get to watch, for any of you who have young kids, and the fantastic stories. She also has an academic background, previously on the faculty of Teachers College at Columbia University.

And next to Rosemarie is Kathy Hirsh-Pasek, who is one of our own. She's a senior fellow here at Brookings at the Center for Universal Education. And she also wears many hats, most especially is the Stanley and Debra Lefkowitz Faculty Fellow at the Department of Psychology at Temple University. It's a mouthful. She runs the Infant Language Laboratory, so she has a whole lab on the science of child development, which is a treat if you ever get to visit her, which I enjoy doing. And is currently working quite a bit not only with the William Penn Foundation, but the City of Philadelphia and a range of other groups in Philadelphia to try to make Philadelphia the first playful learning city through an approach we're going to hear a lot more about.

And last but not least, on the end we have Katharine Stevens who is a fellow think tank scholar, like myself; just neighbors from AEI. And she also is a scholar/practitioner. She has deep expertise in the education sector doing quite a bit on teacher development, and a former preschool teacher, so can really speak from experience from the trenches.

So we're pleased to have all of them here. And the reason we were really especially interested in doing this panel right on our back-to-school week is because we've been thinking a lot at the Center for Universal Education, for those of you who don't know us that well, we've been thinking a lot about learning and education and skills and competency development across the life span, but particularly for children and youth. And one of the things we've been working quite a bit on is this idea of how do we define success? What is it we're looking for?

And we certainly, I think, would argue that there is a quorum of

agreement within the education and child development field that we really want children who have a broad suite of competencies. They need rigorous academic skills and abilities. You want highly literate adults and people who are good at scientific reasoning, but you also want folks who are good at solving problems with others, who can collaborate with colleagues, who can have empathy for others in another situation, who can regulate their emotions, who can come up with ideas and solutions to problems we don't even know exist yet. So we talk about that as kind of the idea of a breadth of skills.

There's lots of terms in the education field. Economists talk about cognitive and non-cognitive, and the psychologists will say that's ridiculous, everything is cognitive. And some talk about social and emotional learning and then you have the businesspeople talking about 21st century skills. It doesn't really matter. What we're talking about is academic-plus. We know we need rigorous academic skills, but much more than that.

And we've been thinking quite a bit about the crisis globally that our learning systems, our education systems are really not fit for purpose. They're really not preparing young people for that breadth -- to develop those breadth of skills.

One particular study coming out of the Education Commission has put forward a statistic which is horrifying to me and will be horrifying to you and horrifying already to those who know it, which is that if we don't really do anything differently, certainly in the education space, in 2030, so that's getting much closer than we think, over 800 million youth will not have the very basic, secondary level skills in literacy, numeracy, critical thinking, and problem-solving. And that's very basic. That's a huge amount of young people who we're not helping prepare for the future.

And that is a gap that is not just in poor countries around the world. We focus a lot on poor countries around the world. It's certainly a gap right here in the United States in poor communities, in communities where kids do not have quality education

opportunities. So there is a big inequity in how we're preparing our young people to be able to thrive in the future, both in work, like, and citizenship.

And one of the things that I'm particularly interested in myself is thinking about, well, how do we leapfrog? How do we make much more rapid progress? If we don't have an education system that is truly fit for purpose for all kids, what are the things we can do differently?

I've put out a book called *Leapfrogging Inequality* a couple months ago, and in it I really argue that playful learning approaches -- and you can use whatever term you like. I like the term "playful learning approaches" because it reminds us that children are born learning and they learn through playing and that it's the education system we might need to adapt to the natural way kids learn, but it's basically this idea of student-driven, experimental, iterative, social, meaningful education approaches. You have to make space for them in children's learning opportunities.

Direct instruction and lectures are also really important. We're not saying replace one with the other. You get different things from them. But if you want young people to not just have rigorous academic expertise, but this broad sweep of skills, you need to make space for playful learning. And for us, trying to think about -- we've been doing a lot of thinking about how could you do that? How could you do that in education systems in a way that much more rapidly allows kids to develop these skills? How do you "leapfrog?"

And one of the ways that we've identified, we looked at 3,000 education innovations in over 150 countries, and one of the ways we identified is that people are beginning to really diversify the people and places where children's learning takes place. So break down, if you will, the lines between sort of the school and the community and think much more holistically. So a whole society approach to whole child development, if you will.

And that is really what we're here to talk about today, is really how can we think much more -- how can we think differently about children's learning and development towards this goal of breadth of skills outside of just the walls of the school? And after all, kids, certainly in the U.S. and it's more or less the same in different countries, only spend about 20 percent of their waking hours in school between 0 and 18. So you've got 80 percent of waking hours that are spent outside.

I see some furrowed brows. When I first heard that I was like is that possible? My kids are always in school. What do you mean? But if you add up after school, before school, weekends, before they get into school at age -- maybe it's preschool -- three, summers, it really is the vast majority of their waking hours is outside school. So how can we think much more creatively about the types of learning and developmental activities that we can curate for our children?

And one of the things that we've noted as a community who cares about children and learning is that children's free time and time to play in the U.S. has gone down drastically. In the report that Michael and Kathy have co-authored and you hopefully have gotten a copy at the front, it's "The Power of Play: A Pediatric Role in Enhancing Development in Young Children," and, most importantly, it's a clinical report from the American Academy of Pediatrics and carries quite a bit of weight. And they cite that between 1981 and 1997, playtime for kids went down 25 percent. And they also note that 30 percent of kindergartens in the U.S. do not have recess. So 30 percent of kindergarteners -- yeah, I mean, these are five-year-olds, four- or five-year-olds depending, don't have any recess. So we really are at a crisis in terms of what we're letting our kids do.

There's also a recent study and report that came out from the UK children's commissioner -- they have a children's commissioner, which I love that idea -- really citing a deep crisis in children's health, both mental health and physical health, and

point to the shrinking ability of young kids to play, particularly outside.

And so we're going to hear quite a bit from Michael and Kathy about why play is important and what they found in their study, and then have a discussion about what we could do about it, thinking about sort of diversifying people in places and across actors in society.

So with that, I invite you up, Michael, and then you, Kathy.

DR. YOGMAN: Well, first of all, thank you. It's really quite an honor to be here at Brookings talking about this work. My focus in this paper is on early childhood because that's been my love for years. And it grew out of experiences I had at the Boston Children's Museum really observing the joy when parents and children were actively playing and realizing that that was one of the few places where they could safely engage with a diverse group of kids from all socioeconomic backgrounds. And that led to my seizing the opportunity to really make a value statement on behalf of the American Academy of Pediatrics, and I'm proud that they were willing to support this.

I'll start off with a couple of quotes that I think capture the breadth of this issue. The Museum of Modern Art in New York had an exhibit a couple of years ago called "The Century of the Child." And I love the quote from their book. "Its play is to the 21st century what work was to industrialization. It demonstrates a way of knowing, doing, and creating value."

I also love an old quote that many of you probably know from George Bernard Shaw, who said, "We don't stop playing because we grow old. We grow old because we stop playing."

And lastly, much to our surprise in Sunday's *New York Times* one of the op-eds was about the value of play in reversing the decline of liberal democracy and overt partisanship. So Kathy and I were both astounded at the way this has extended.

So I'm going to talk about three points today. One is that play with

caregivers, peers, teachers, and the broader community is brain-building. It enhances brain structure and function.

Secondly, that, as Rebecca mentioned, playful learning is a fundamental of healthy development. And it's crucial for 21st century skills such as executive function, collaboration, and innovation.

And finally, and this I think is really powerful, we know about the importance of relationships, but I think play helps build the safe, nurturing relationships with all caregivers that mitigate toxic stress and promote resilience.

So I won't go into great detail, but a lot of animal data that's hypothesis-generating for humans is that play influences brain anatomy, particularly in the prefrontal cortex and the hippocampus, which are the seed of executive function skills; and dendritic complexity neuronal growth factor; and even epigenetic changes in the brain-derived neural growth factor genes.

So, as Rebecca mentioned, the characteristics of play, intrinsically motivated, child-directed, active, engaging, and meaningful. Joyful discovery, I think we really want to emphasize the joy in the agency that children experience when they're playing and often socially interactive.

Now, there are various categories of play, but I just want to highlight one specific category, attunement. So attunement is a concept originally promulgated by Daniel Stern and Berry Brazelton around the three- to four-month social interactions, the serve-and-return turn-taking, that are the basis for the pragmatics of later language development that parents and children experience in the first few months of life, both mothers and fathers.

Object play. Obviously play with not necessarily fancy toys, but play with leftover dishes, with Tupperware, with wooden spoons. Kids can be incredibly imaginative with how they explore the properties of objects.

Physical play, outdoor play, rough-and-tumble play. Sadly, playgrounds are increasingly unsafe and children have lost a lot of opportunities to play in safe playgrounds. And the opportunity for kids to take safe risks and to learn how to engage in rough-and-tumble play without hurting each other and the coping that comes with that I think is also a factor in the increasing rate of obesity in our culture.

Imaginary play and storytelling. I think not enough to just read, but for kids to be able to tell stories to each other about what they're reading and to their parents.

Kathy will talk in much more detail about guided play and playful learning. And again, back to outdoor play and its importance for -- there's a book called *The Nature Deficit Disorder* for kids that don't go outside.

Again, another categorization of play, who initiates, who directs, and whether or not there's an explicit learning goal. Kathy will talk more about this, but I just want to make the distinction between the first three categories and direct instruction, which is all directed and initiated by adults, which is the predominant mode of education, unfortunately, in our schools right now.

Now, we talk about 21st century skills. So we want to emphasize not only cognitive language skills, but play helps with negotiating, with social-emotional skills, the self-regulation skills that build executive function, task persistence, problem solving, and building this prosocial brain that we think is so critical. And again, you can see it captures this construct called the "whole child."

Now, when we talk about the future, it relates both to that New York Times op-ed article, but it also relates to surveys of CEOs about what they want in a future workforce. They want employees that are not only smart and have the basic cognitive skills, but they want employees that can work together in teams and problem-solve and collaborate and be creative and be innovative. And these are exactly the kind

of skills that play helps cultivate.

So we talked about its effect on brain function. We talked about its effect on skill development. My third point was that play promotes safe, stable, and nurturing relationships. Again, the best example is the serve-and-return interactions, the attunement that parents and children experience during play, the shared communication and mutual joy.

The way play empowers parents in a guilt-free way to become better observers of nonverbal cues in their children during play is really a very kind of empowering way to support their interactions. And we know that those kinds of interactions and relationships can really mitigate the body's stress response.

Just an example of attunement. And what we're really talking about here is the opportunity and possibility of play really mitigating toxic stress or adversity and promoting resilience. So in the presence of childhood adversity the role of play, especially social play, becomes even more important.

One of the important constructs that's gotten a lot of press in the last 10 to 12 years has been this concept of different levels of stress response. Obviously, the CDC study about the prevalence of adversity and trauma in people's histories and its effect on both childhood morbidity and on long-term adult adverse health outcomes makes the distinction between positive stress, which is adaptive and coping and pretty ubiquitous here in Washington, tolerable stress, buffered by support, as opposed to toxic stress, which is what we're most concerned about, prolonged activation of stress response systems that influences not only neuronal circuitry, but inflammatory mediators, the immune system, even probably the microbiome in the absence of protective relationships. And here's where play and the protective relationships can be incredibly buffering.

And when we look at the prevalence, the increasing prevalence, of

anxiety and depression in not only high school students and college students, but in middle school students, one can think about the importance of playful relationships and mitigating those kinds of mental health adverse outcomes.

So our paper created a prescription telling a value statement, basically suggesting that parents remember to play with their children every day. And it's a way to, as I say, engage parents in playful interactions without involving guilt. It's a value statement. It's basically saying trust your common sense, watch your child.

And this is a broader perspective on improving outcomes for children: reducing stress, strengthening core life skills, supporting responsive relationships. And I think play has a role in all three domains.

So I want to turn the mic over to my colleague Kathy, who will talk about the balance in curriculum, the opportunities for playful learning throughout urban neighborhoods, and the variety of context in which we can really provide opportunities for playful learning.

MS. HIRSH-PASEK: Well, hi, everybody. Are you ready to play?

(Laughter)

So what I want to talk to you about now is something that's really going to sound different. This is leapfrogging at its best. Going out of the box to think of things you never thought about before and how we might take the idea of play and work it right into our communities and our neighborhoods. And we're calling this initiative "Learning Landscapes."

Now, in our Pediatrics report Michael already mentioned that we talk about different kinds of play. And we think or can think about play as existing on a kind of continuum from free play through guided play to games and then non-play.

Non-play would be when you have something that is initiated by an adult and when it's directed by the adult. Kids need not apply. But you can have environments

where something is initiated by a child and directed by the child. That's when the child goes into the living room and builds the fort. And you can also have the most wonderful places on Earth, children's museums, our Montessori schools, or places where an adult builds a fabulous environment, but the child gets to be the discoverer and the explorer. And when that happens, we have found in the scientific literature, the science of learning, that we then can optimize learning goals while still having a very playful environment. And we call that environment guided play.

Now, the literature so far, and it's a growing literature, so I don't want you to think it's slam-dunk at this point, but it turns out that when you have a learning goal in mind, guided play seems to be quite effective in helping increase language outcomes, reading outcomes, math outcomes, spatial thinking, and executive function outcomes. So we wondered could we infuse guided play with a learning goal into these everyday spaces in our world? Could we literally shape environments architecturally so that the kind of behavior that you got in those environments stimulated guided play?

Now, as Rebecca already told you, I mean, after all, kids are only spending 20 percent of their time in school. And we know there are huge gaps between the under-resourced neighborhoods and more over-resourced neighborhoods, so maybe, just maybe, we could use Learning Landscapes as a way to supplement what's going on in the schools and to help children get just the experiences they need to have brain-building moments. The initiative would sit at the juncture of early education going up all the way through, I would argue, even adulthood, but starting in early education and where it meets the Global Cities Movement. And sitting right there are the development of family-friendly cities and education could be something we would call Learning Landscapes.

Now, this all started one day when I was sitting at home and wondering when is a bench not a bench? Like why does a bench have to be that, right? Couldn't a

bench have puzzles on it? Couldn't a bench have games on it? Couldn't you do something with a bench?

And when I started there I then made a phone call to someone who I heard was an architect starting something called the "Conscious Cities Movement." The Conscious Cities, how can we make cities more aware of the people who live in them and give them more opportunities?

So it was with that that we created a vision, and I'm going to try to make this work. I just hit it like this? Oh, it worked. Oh, my god, I'm not technoplegic anymore. I'm learning.

(Video shown)

MS. HIRSH-PASEK: So you might be wondering, so what happens when you do something this crazy? And today I'm going to share some of the very first results with all of you.

Now, the first project we did was called the Ultimate Block Party. And we went into New York City and we kind of took over the central part of Central Park. We had 28 different scientifically inspired activities and people came from all over. We had a huge reach, over 10 million people. And the results were that when parent played in guided play environments with their children, they started to see the value of play for learning after visiting just 3 of the 28 exhibits. Experiment 2, you just saw a snippet of it here.

The supermarket study. In Supermarket Speaks what we did is we put up signs and these signs were just prompts in the supermarket. Some days they were up, "Hi, I'm a cow." I know they're stupid signs, but they worked. "I'm a cow. I have milk. What else has milk?" And all of a sudden, the parents and kids started talking about milk. They had conversations. Indeed, in our research in the low-income neighborhoods the conversation level went up by 33 percent when the signs were up as opposed to when

the prompt signs were down.

Example 3, Urban Thinkscape. In Urban Thinkscape, which was our bus stop, we compared what happened at this bus stop with a local playground just to see whether we were encouraging the right kind of stuff, and here are the first results.

Increase in parent-child interaction over our control site. Increase in language use by the children. And our targeted language use, spatial language, numerical language, which are the building blocks, brain builders for math and science and STEM went up. That's amazing that it happened just out there at a bus stop.

Parkopolis. Parkopolis was designed to spark STEM, but so too was our control site where we were looking at rocket building. And we wondered would the kids end up using more number language, would they actually talk about fractions with our fraction dice? See how we changed it, one to six and then one with fractions. Then you had to deal with fractions. What would happen? Compared to the rocket exhibit, yep, the kids were more involved, used more of the numerical language, did more problem solving, made more predictions, and had more hypotheses in Parkopolis than they did in the rocket building.

And finally, what's going on in Playberry? Please notice that in Playberry when you're climbing that wall, you can actually spell out words and the kids actually do. What did we find? More interaction among adults and kids, more number and spatial language talk, and the parents put their cellphones down. That was cool. (Laughter)

So across the experiments so far I think we've learned that we can indeed encourage guided play in public spaces through architectural design. We just need to be clever about it and we need to make sure that we preserve the integrity of the science as we do those designs. And, in fact, for anyone interested we've just come up with a playbook that I'm happy to share from Philadelphia where it shows you our thinking as we go through the design process.

We can enhance that other 80 percent with informal learning and parents and children can increase the brain-building moments that are going to lead to math, to STEM, to reading. So it's all very exciting.

We've been expanding and scaling. We've been rethinking what jails could look like in Madison, Wisconsin; hospital waiting rooms in Philadelphia; we are doing a park in Kenya, Nairobi, Kenya, right now. So join us in dreaming and thinking about what we can do as we go out of the box; also working with groups like Urban 95. And then I just encourage you as a bottom line to say we really can make a difference if we just ask when is a bench not a bench? (Applause)

MS. WINTHROP: Good. Can you guys here me? Yes, excellent. Well, thank you so much, Michael and Kathy. And I wanted to pick up on something that Kathy said right at the tail end, which was "and the parents put their cellphones down."

So I wanted to hear from all of you, but actually, Rosemarie, particularly from you since you represent the media and the media's mediated through technology, is this decrease in play -- you know, a lot of the things that the report that Michael and Kathy co-authored with their other colleagues and the Children's Commission report, you know, is technology to blame? Why is this happening?

MS. TRUGLIO: That's a very good question. And I do represent the media. I represent the positive side of children's media. (Laughter) Sesame Workshop is the creator of *Sesame Street* and other programming, and I'm going to be highlighting a new program at my next opportunity. But our goal, our mission has always been to help kids grow smarter, stronger, and kinder, and to really take a playful approach to learning and a whole child approach. We're not a literacy show or a math show or a social-emotional show. We're really addressing all development in children.

And I'm glad to see that PBS is represented here. They're a long-time partner, our first distribution partner, and we're about to celebrate our 50th anniversary on

November 10, 2019, and our new distribution partner, HBO.

So I'm going to say that it's not a simple answer, yes or no. Yes, media can be a disrupter. Yes, it could be a time-suck. It could be a time-suck for children as well as adults. Now, keep in mind you are role models to children, so I am going to ask you to all take a look at your own media use, especially when you're with children.

But media, they're tools. And as I said, I'm on the positive side because we tend to use media as a positive tool, as a positive resource. Because when we talk about increasing playtime, there's also a lot of judgment on parents. And so I also want to represent parents. I'm going to be sharing some research that we have, that we've conducted with parents. We need to show them what this looks like, and so that's why I love working with Kathy and seeing what Kathy's doing because she's not just saying go out and play, she's showing you how to play. And so media can be used as a positive resource to show what it looks like.

Now, media can be a very easy thing to blame. It's probably one of the first things that we cite, you know. Well, it's because of technology. It's because children are spending so much time with technology. But we've had a problem with play and getting kids engaged in play and getting the adults to engage in children's play way before television and way before the iPad, which is a recent invention. So we cannot just use media as the scapegoat and to blame media.

We have to start drilling down and focusing on what are the barriers for play? Why is it that parents don't understand the value of play? Why is it that parents don't understand how their children are learning, and across content domains? And it's one little presentation by Michael, they're learning across content domains so many important skills. Who is highlighting these associations between play and learning? So before we blame media, we've got to think about who. Who are the stakeholders to really describe how learning is occurring?

Now, we talked about play on a continuum. There's free play all the way to structured play. Now, parents have some understanding of free play. They value it. They don't understand all the learning that is associated with it, but they -- like it's important for my child to play. So prescription play every day, yeah, my child can play.

They also understand the value of structured play and games, sports and games. However, I've been to enough soccer games and basketball games through my son's lifetime that I know that parents have corroded and corrupted the sports, as well, and are very aggressive. You have to hear on the sidelines what parents are saying to their children. I'm horrified -- horrified -- the aggression that is going on and the bullying, the bullying by coaches and the bullying by parents and there's bullying among team members, as well.

But that middle ground, that guided play, they are clueless. I'm sorry to say, Kathy.

MS. HIRSH-PASEK: I know.

MS. TRUGLIO: But they're clueless. They have no idea --

MS. WINTHROP: Parents are clueless?

MS. TRUGLIO: Parents are clueless. They have no idea what guided play is. They have no idea how to facilitate it, how to initiate it. And they don't know the role that they have in guided play because when they do engage, they, as you know, Kathy, they want to take over. And the child then loses agency and that's when the learning is going to break down because, as Michael and Kathy said, it's got to be child-directed. There's got to be child agency in order to be associated with these learning outcomes.

And what's important with Kathy's work is that we know that there are spaces that could help parents. And Michael talked about a children's museum, the Please Touch Museum. But Kathy now is bringing it to the supermarkets and the

libraries and the park bench, so it really is that think out of the box. And I've been inspired to use media now to hopefully facilitate and to educate the adults in children's lives to learn more about what guided play is all about.

MS. WINTHROP: And can you tell us how to do that? How do you do that? How do you help parents understand what guided play is? How do you -- yeah.

MS. TRUGLIO: Well, I guess because I've spent a lot of time with Kathy and others at Lego.

MS. HIRSH-PASEK: Right.

MS. TRUGLIO: And on an advisory board with them, that I decided that when we had an opportunity to create a new television program that I wanted the show to be inspired and infused by a guided play curriculum. And that was a think-out-of-the-box kind of approach because in the world of children's television it's usually, oh, we're going to have a show about creative problem-solving. That's nice, but that label could be placed on most children's programming because there's always a problem to solve and most people in television shows solve it creatively. I wanted a different approach.

So when I was given this opportunity with this concept called *Esme & Roy*, *Monster Sitters*, it's a little girl who lives in a monster town and her best friend is Roy. He's an adult monster and they have a babysitting service. And I said to myself, sort of what Kathy says, you know, how did you play as a child? Well, I had a babysitting service when I was around 12, 13 years old. And I'm sure as you all think about your childhood you had many experiences babysitting children. What do you do with a babysitter? You play, right? You're all excited when the babysitter shows up. You want to play.

I didn't have all those play tools back then, but I was playful. But there's always a problem. I've never had very easygoing kids, I guess, but a problem always arises. So this show is an opportunity to model mindfulness strategies to help a child

regulate his or her emotions, but, and I asked Kathy if I could do this, I wanted to expand this definition of guided play a little bit.

The babysitters, monster sitters, Esme and Roy, they are very observant of what's going on with the child, the child's interest and what they're playing in the home. So when the play arises they're using what the child is interested in as a way of solving the problem. So, yes, there's a learning outcome, a learning goal associated with the play.

And we're modeling three types of play: pretend play, maker play, and game-based play with rules. But I wanted to use play as a way of solving the problem because I'm going to bring it back to parents. Parents are very interested in strategies that will help them. We have to reach parents where they are. So the research that we did with parents, they're saying this takes a lot of time. You want me to spend all this time in play? I can't do that. I don't know how to do that. I don't have the materials to do that. I don't have the space to do that. My apartment is small. I don't have a nearby playground to play.

So I wanted to model through this program, yes, it's for children, but I'm hoping that the child will bring the adult into a co-viewing situation. And thank you, the American Academy of Pediatrics, for advocating for co-viewing because we need parents to be involved in their children's media experiences.

And so I don't know, do you want to show a clip?

MS. WINTHROP: Yeah, were you able to bring a clip?

MS. TRUGLIO: Yes, I was able to bring a clip.

MS. WINTHROP: Excellent. Yeah, let's see it.

MS. TRUGLIO: Okay, if I could just set this up. This character, Simon, loves to read and he's been following this series of books and this new book just came out in the series. And his grandmother left, she's an actress, and she accidentally took

the book with her. Now, he, Simon, was so excited to read the book with Esme and Roy, his monster sitters. So when he finds out that the book is gone, that his grandmother has the book and now he has to wait until she comes back, he has a meltdown. So after they calm him down --

MS. WINTHROP: So familiar.

MS. TRUGLIO: Right. (Laughter) After they calm him down --

MS. WINTHROP: I had one of those yesterday. (Laughter)

MS. TRUGLIO: -- they engage in playtime as a way of helping Simon delay gratification, which is an executive function goal.

MS. WINTHROP: Great.

(Clip from *Esme & Roy* shown)

MS. TRUGLIO: So we're using lots of cardboard paper, tape. She's got a monster case filled with supplies, everything is handmade.

(Clip from *Esme & Roy* shown)

MS. TRUGLIO: So you could see here this is clearly child-directed. Esme and Roy are there to scaffold, to guide, and they reenact this whole *Mighty Monster* story.

It was really important for me to end every episode with a button, a message to parents, because, once again, I wanted to make that connection between learning through play and learning outcomes. So there's always a message at the end explaining what learning came from this play.

So when his grandmother comes back with the book he says, oh, I'll read it later because when we acted it out, I had so much fun. And then Esme and Roy tell the grandmother that this type of play helped him wait, helped him -- it's a strategy to help him wait until you came back with the book.

MS. WINTHROP: Great. Thank you, Rosemarie. It's always great to

see videos, isn't it, to just bring things to life.

And I have a question for you and actually maybe, Katharine, you can help us answer it, which is we have out front one of the reports we passed out. It's from the Lego Foundation. And it is their Play Well 2018 report and they surveyed almost 10,000 parents in 9 countries -- U.S., Mexico, Russia, China -- very diverse, representative. And 90 percent of all the respondents, of these parents said play is really important for a bunch of 21st century skills, you know, for creativity, for sort of getting along with kids. So in that survey parents think play is really, really important.

So how do we square these? Is it the nuance that they understand free play, but not guided play? Or is it something to do with sort of the education system? Katharine, you have a deep expertise in the education system around sort of the pressures of academic, solely academic success. How do those two things go together, this decrease in play and yet this recent survey just came out that actually parents do see the value in play?

MS. STEVENS: Yeah, what I find so exciting about what you guys are all working on is I just think this tremendously needed balance that's been lacking for a long time in our society against this very strong bias towards school that we have. And I think sort of my bigger thought on that is that for several decades now in the United States and in other Western countries we've invested heavily in money first and foremost and then just sort of attention and focus on our school system as kind of a key to human development. And what I've really been thinking a lot about is how over that time, just the last several decades, we've really come to confuse education with schooling.

Schooling is a very narrow part of education. Education really means human development. So there's been no other period of time in history in which human development meant schooling. Schooling is something that developed to provide in this 20 percent of waking hours, which is probably -- lasts when -- fairly recently, very specific

skills, like reading and writing and arithmetic. And it somehow just assumed this immense status in our society: K-12 actually 700 billion public dollars. You could do quite a few things with benches for at least a fraction of that. (Laughter) And I think it's disempowering for parents.

So I think what's so -- I just actually cannot believe that -- I don't know if you guys are feeling the same way, this is like literally you came up with these amazing ideas and now you're putting them in this TV show that we're going to be seeing, and we knew it was going to happen. It's so exciting. And I think it's potentially -- it just elevates what is really most important about human development, which is our families and our communities where we are spending 80 percent of our time. And those parts of our society have become somewhat disempowered.

So I have absolutely no idea, I haven't seen the research that you're referring to, but I think parents have been made to feel as though there's just simply nothing they can do that's going to be that important relative what really matters, which is school. And in terms of early education, which is what we're talking about here and what I focus on, this is something that I see happening in our thinking about early childhood.

For so long now we're so adhered to this idea that the key to human development is school. We're recognizing that that's not working very well. However, our solution is actually more school younger and younger and younger. And what's so exciting to me about this is that in the early years especially this really underscores how that's a misguided approach to improving how we are developing new humans in our society.

And I could imagine this just as being -- for parents to know, and I think that's also what's so exciting, Kathy, about some of the projects you're doing, for parents to recognize, to be sort of celebrated for their role in helping their children learn, I don't think that's something that they feel very confident in because of the messages they get.

MS. WINTHROP: And I know because we've talked about this before, one of your worries and concerns is this idea that kindergarten is the new first grade and that preschool will be the new kindergarten.

MS. STEVENS: Correct.

MS. WINTHROP: And where is early -- like where is the space for play and family interaction?

MS. STEVENS: Right.

MS. WINTHROP: Or community, social, sibling, caregiver, neighbor interaction. So can you talk a little bit about that?

MS. STEVENS: Right. I actually would go so far as to say I feel it's potentially dangerous this path that we're going down.

So when kindergarten took off in the early part of the 20th century, the narrative, if anyone's interested in history it's interesting to explore this, the narrative around why we had to have kindergarten is absolutely identical to the narrative for why we have to have pre-K, which is that people are not ready for school. And it was conceived as a child garden where they were going to be playing.

When my sister's youngest child -- oldest child entered kindergarten a couple of years ago, she emailed us and said where did the pink, fluffy rugs and graham crackers go? (Laughter) So they are sitting at desks and filling out worksheets. And the fact is that that is the direction that school goes. And I don't see any reason for us to think that schools are going to be the best vehicle for the kind of playful learning that both this growing body of science, practical experiments, and common sense suggest.

Now, if I could just kind of highlight one other area. There is a place where this could happen and, as a matter of fact, has to happen and that is in childcare. Not because that's part of anyone's vision of the perfect universe, but because about two-thirds of children under age six are now spending an average of 36 hours a week in

childcare, often starting in infancy because what we all know about working parents, work schedules, whether that's two parents both working, a single parent working.

Children are not in those environments because we're adding programs on. Children are in those environments, for better or for worse, because that's where they have to be. And that to me is kind of a potential gold mine for -- it's an ambitious kind of a task, but how do we help childcare providers, whether that's kinder care or an individual home-based family provider, understand exactly what you guys have been talking about? To me families, parents understanding this and childcare providers understanding this are really going to be the key to the nature of the childhood that American children have.

MS. WINTHROP: And we can probably come back to this in the Q&A in a few minutes around this idea of, you know, should we put our sights on daycare and childcare? Should we not go for universal pre-K? Which is what you were implying, which is, of course, a big movement at the moment.

But first let me ask just a couple of quick questions before I open it up to the audience. Michael, I wanted to ask you because you're involved with us here at the Center for Universal Education and I've been hearing about this report for a little while now, why was it so important that the American Academy of Pediatrics put this out as a clinical report? What does that do?

DR. YOGMAN: Well, I think it's a value statement to parents. You know, pediatricians have probably the most contact with parents of young children in the first two to three years, and so I think it's a value statement. Parents are under a lot of pressure about doing everything right, doing everything perfectly in the first couple years and this drive for success, and I think to push back and say that there's a suite of skills that your child can learn.

And one of the rude awakenings I had was when a preschool teacher in

the Bronx wrote something that she was crying because her supervisor told her to throw away the blocks. And, you know, that's not what -- and this childcare teacher knew in her heart of hearts that that was not the right way to go.

So I think, you know, pediatricians have a voice that's often listened to. They're busy and I think this will -- but I pushed pretty hard for this and I think it may have some -- I've been surprised at the fact that the media has really picked it up and it's gotten a lot of play.

MS. WINTHROP: And it sounds like it's more than even just sort of media coverage as a credibility tool that directs sort of practice amongst not only pediatricians, but can be referenced by other people who take care of kids.

DR. YOGMAN: Yeah. So I think it's to parents, it's to preschool teachers. I think it's a round curriculum. But I think that, as a number of people have pointed out, I think we need to go deeper and show parents how to do this, not just add another burden to add more time, but to really show parents how to not take over. Let the child lead, but scaffold that play so that kids can really learn what they need to learn from it.

MS. WINTHROP: A guide to play piece.

DR. YOGMAN: Yeah.

MS. WINTHROP: So one more question, and this is a quote from the report. And you or Rosemarie or Kathy or Katharine feel free to jump in, but I want to circle back to this question of technology.

So you were very convincing, Rosemarie. The problem is not the iPads. The iPad was just invented in, what, 2010?

MS. TRUGLIO: 2010.

MS. WINTHROP: 2010. So, you know, we've had this decline. The report talks about the decline in sort of children's play since 1981 and presumably it

started before that perhaps.

But there is a quote in the report that says, "Real learning happens better person-to-person than machine-to-person interactions." Now, there, having just done a book on leapfrogging inequality and reviewed education innovations around the world, there's a lot of people out there who are working on adaptive learning and technology apps that help kids learn. What do you want to -- so I feel like a lot of people would disagree with that. What do you guys want to say?

DR. YOGMAN: Well, I think that it may have been a bit of an overreach, but I think the notion that machine learning, if you look at it that way in that construct, is not interactive. It's not two kids playing with an iPad. It's not a child and a parent playing with an app. And it's based on, you know, for better or worse, that study of the Einstein flashcards compared to -- or to children's language development based on watching something versus talking with a live person.

MS. WINTHROP: Kathy, you wrote --

DR. YOGMAN: And I --

MS. WINTHROP: Sorry, Michael. You wrote that study. You wrote that book.

MS. HIRSH-PASEK: I did.

DR. YOGMAN: Yep.

MS. HIRSH-PASEK: Well, no, I mean, the way I look at it and, as Rosemarie said, it's a complicated question. And I view it as prompts and partners.

I think when you have media that is going to prompt other adults to start having conversations, it's great. But when it plays partner and takes away some of the social, then it's not as good, especially for younger kids. And each time that it's been looked at in our literature, especially for the three and unders, little kids need people.

So to the extent that you can create an app that gets parents asking

questions or having discussions or whatever you're doing, and I've seen some wonderful stuff that's come out of Rosemarie's shop -- I mean, it's like amazing -- then it's really great because those interactions happen.

I'll just say one more thing about it because I think there's a growing literature, literally stuff is coming out every week on this. We now believe that that back-and-forth that Michael talked about as attunement and I'll talk about as contingency, that contingency between another social actor and the kid may be the magic sauce. And we have to make sure that we don't lose the magic sauce.

MS. WINTHROP: There was --

MS. STEVENS: Could I just make a quick comment on that?

MS. WINTHROP: Yeah, Katharine.

MS. TRUGLIO: I also want a chance, too.

MS. WINTHROP: Okay, then we're going to the audience.

MS. STEVENS: You know, I just think that if somebody from even 100 years ago were to be put in a time machine and arrive in this audience to hear this conversation, they would think it was the weirdest thing they'd ever heard. It's like these really fancy people standing up here and talking about -- you know, we're discussing the research that shows that human development requires human interaction. (Laughter) I mean, this just goes to show how far we've come from what matters most.

And I also -- there were two other things that I wanted to highlight. One is another piece of the picture that happens in childcare settings, in home-based childcare settings, and in families that is not happening in other parts of our society for children is mixed age groups. So those monsters, that was a mixed age group.

MS. TRUGLIO: That's right.

MS. STEVENS: And that is -- I now only see mixed age groups of children playing in the airport. (Laughter) And it's my obsession in the airport, I travel a

lot. And you see babies, toddlers, they are not paying attention to the parents. They are paying attention -- their parents are exhausted, letting them run around in a way that doesn't happen anywhere else, right, and they are so focused on the children, whether their own siblings or other children or other ages. So I think that's a really key piece of the play which was in those videos that you showed us. Those are mixed age groups of kids in your video.

SPEAKER: That's a great point.

MS. STEVENS: And so I think that that's another -- and there was another thing I wanted to say, but I forgot.

MS. TRUGLIO: Well, if we're going to bring up media, I have to speak.

MS. WINTHROP: Okay, but short.

MS. TRUGLIO: I can't be --

MS. WINTHROP: We can let you back in because we want to go to the audience.

MS. TRUGLIO: Okay. No, but I want to say something because I think it's really important for us to remember that content matters. And content matters in the parent-child interactions as well as in the media experiences. There's good content and not so good content. So I get a little perturbed when we compare parent-child interactions to Baby Einstein videos, which were designed poorly.

And so our response, Sesame Workshop's response, was to come up with Sesame Beginnings, once again to model what does good parent-child interaction look like across different types of parents and caregivers in terms of we represented a father, a mother, a grandparent, and an aunt. And I think that's really important because not all media content's the same and not all parent-child interactions are the same. And we all know that there are sometimes negative parent-child interactions. And sometimes maybe in those cases it's maybe beneficial for a child to be engaged in an interactive

educational game than to be in some of these not so positive adult-child scenarios.

And so I just think, once again, it's not black and white. There's a lot of gray. And I think it's our responsibility, and I think that's what's so wonderful about this event and this panel representing different components of stakeholders, so to speak. And I thank you, American Academy of Pediatrics, for putting this report out to show that there are a suite of skills because we have to help the adults and policymakers understand the gray. It's not black and white.

MS. WINTHROP: Okay, great, fair point. So we'll take just one round very quick, brief intro. I'm going to start at the back and go down. And you guys are just going to have to take notes and answer your favorite question.

So start at the very back. Very brief question and please do introduce yourself.

MS. ANEESE: Hi. My name is Katie Aneese from Open Society.

MS. WINTHROP: I don't know if that's on.

MS. ANEESE: My name is Katie Aneese.

MS. WINTHROP: Can you put it closer? We cannot hear you.

MS. ANEESE: Hello.

MS. WINTHROP: Excellent.

MS. ANEESE: All right. So I'm Katie Aneese and I'm from Open Society Foundation. So loved the mix of the interactions and what you presented. I had a question on the other pendulum. Here we're talking about playful learning, assuming that we don't encourage play. And I want to ask a question not as a professional, as a parent.

So my kid didn't have a chance. I'm an ECD person, so he's playing and learning all the time. You know, if you're brushing your teeth he's counting 298 tiles on the walls. You know, putting on shoes, what happens if you put them backwards? What happens when you, you know, stop up the sink while you're brushing your teeth? So

there's this constant play happening. But as a parent, you know, you got to get to bed on time. You also got to get to school. I think parents know the sort of demands that we deal with in modern life.

And we just came back from Zambia and I observed some very interesting things in terms of parents who are highly loving, but demanded a lot. Demanded executive function, self-regulation, self-control. And so I saw four-year-olds who are actually brilliant, great social skills, and operating at the level of nine-year-old Zambians.

And in another context we were embedded in a Sri Lankan parenting context where the parents were, you know, expecting a high level of performance, precision, expecting them to hear instructions, follow them, and complete them. So lots of persistence, but with love. And so these kids later, and their older siblings, performed very highly in science, technology, and the complex professional arenas that, you know, need a deep body of knowledge and attention to detail.

So I want to ask you more about guided play, open-ended play, parent-directed play. And how do we -- you know, if we plant the expectations that we expect, where is the balance in terms of precision and detail versus open-ended and the result of getting innovative children versus children (inaudible)?

MS. WINTHROP: Thank you. It's a really interesting, thoughtful -- it's about cultural context and cultural expectations and balance between play.

Over here, the back. No, she's standing up.

MS. BURNS: Hi. My name is Tora Burns. I'm from Homeless Children's Playtime Project. We're a nonprofit that serves families and children living in homeless shelters in D.C.

My question -- I had a two-part question, but I know we don't have a lot of time. My question is how do you ensure that -- first of all, I love *Sesame Street*.

(Laughter)

MS. TRUGLIO: Thank you.

MS. BURNS: I think *Sesame Street* does a good job of this. I watched it this morning. (Laughter)

How do you ensure that the initiatives that you start, whether they're on the pediatric side or whether they're government side, how do you ensure that they're culturally responsive to the community that you're serving? Because I believe it's important that we show children that to be intelligent you don't have to be "other," that you can be yourself and still, you know, perform.

MS. WINTHROP: That's a great question about sort of cultural relevance.

So let's go to this side and to the front, Amber.

MS. LARSON: Hi. Jamila Larson, also from the Homeless Children's Playtime Project. Thank you so much for being here.

One of the settings that we're trying to bring play is to the almost 1,000 children that live in shelter hotels in D.C. along New York Avenue that are completely hidden. And so we are setting up play programs and bringing that to them four evenings a week. And if you want to volunteer, come talk to us because we definitely need help.

But my question is how can we make cities and more nontraditional institutions value play? We're having an incredibly difficult time operating within the District of Columbia government as well as these nontraditional shelter settings, who aren't even giving us basic access to the environment we need to set up these pop-up playtimes. So how do we help cities value play?

MS. WINTHROP: And right here.

MS. GOVE: Thanks. Amber Gove of Research Triangle Institute.

And adding on to that, I guess I would love for the panel to comment on

how we do a better job of enlisting our rapidly aging boomer population and seniors. When we build cities for 8 to 80 we've got some evidence around that. But how do we convince the AARP to join the AAP? (Laughter) Because we need more allies. The older folks are the ones who are voting and allocating scarce resources. How do we convince them that this is not a zero-sum game and this will benefit everyone?

MS. WINTHROP: That's great. Last question here in the front in the blue.

MS. SIMPSON: Hi. I'm Heather Simpson with Room to Read. One, are there any books that model this guided play, as well, to help inform our local language publishing? And two, is there any research on play for older children, as well, not just babies, but the youth?

MS. WINTHROP: I think the books one maybe you can find her afterwards, but the question of is this just for young kids or is this play across the spectrum.

Very last, Strobe Talbott, our former --

MR. TALBOTT: What happened to recess?

MS. WINTHROP: What happened to recess? (Laughter) Okay. We will just take it just straight down starting with you. Answer one, Katharine, not all of them. Brief final comment.

MS. STEVENS: Yes. So I would say to the first question I don't think anybody is saying that play is going to solve our pretty significant human development problems. There's a survey that came out recently by the National Association of Elementary School Principals that show for the first time ever, every decade they do a survey of elementary school principals' number one concern, and the top concern is the increase in the numbers of children with emotional problems. Forty percent identify that as an extreme concern, 34 percent as a high concern. This is the first time ever that that

problem has even come into the top group.

So I think that things like parenting styles and absence of play are all part of a bigger picture, but that get at the heart of how we are as a society, how we are supporting children, how we're supporting families, and how we envision human development.

MS. WINTHROP: Great, thanks. Kathy, final word and a question?

MS. HIRSH-PASEK: I'm going to take your second question which was on cultural relevance. At least in Learning Landscapes we took it super seriously and we made sure that -- you know, we kind of know the principles. That is you should have a puzzle, but what's on the puzzle is up for grabs.

So when we into Urban Thinkscape and Parkopolis and all of these projects we met with the community. We asked them would you want anything like this? What do you want for your kids? And they told and then we molded it around what they wanted. We created the puzzles, the spaces with the community, not to or at the community, and it was a joint project. I would say it was completely co-created. Urban Thinkscape was built by over 100 members of the community. We were all out there together hammering it together.

And I will tell you that it has been up since October of last year. In West Philadelphia, in an area that is not considered a high-end area, there's not one bit of graffiti on that spot we created.

MS. WINTHROP: Okay, thanks. Rosemarie?

MS. TRUGLIO: I want to take the older. I think this is a big issue, you know, and we're putting a lot of emphasis on early childhood, but what's happening to play beyond early childhood? And I think that there's a lot of structured activities and parents are putting their kids in more and more of these structured activities. And when is their downtime? And I think that's when some of that media starts to seep into, these

video games.

So Esme and Roy, for me they're play mentors. Thank you for picking up that, you know, she's older, old enough to have a babysitting service with an adult character. And they're also playful with each other. So you start in their clubhouse and you end in their clubhouse, so you get to see them play as well as play during the time that they're with other children. But I think it's a big concern.

MS. WINTHROP: Michael, final word? What happened to recess? How do you get the AARP on board with the AAP? (Laughter) I'm not pointing that question to you personally. (Laughter) I meant as a strategy for all of us.

DR. YOGMAN: How to get the AARP on board other than adults need to play? And we had a grownups museum at the Children's Museum as a lark and it turned out there was a waiting list a yard down the road for 20- and 25-year-olds to come play at the Children's Museum. So lots of -- maybe we need to do that for the AARP.

I think the cultural questions are really very profound and very important. And I think they surmount all of this. And I think we need to -- you know, I think pediatricians have that one-on-one relationship that if they're trusted can engage with parents to figure out what are different cultural goals? Because I think in different cultures, people have different expectations for what they want their kids to be capable of and to do.

But I think the -- I want to come back to Katharine's comment to close with, which is as much as playful learning and the media have a place, I want to come back to the importance of person-to-person relationships, particularly around the prevalence of emotional problems, which we're seeing far and away in pediatric offices, in elementary schools, and the prevalence of anxiety and depression in college students. I think that there are a lot of broken personal relationships and I think we need to shy away from trying to support parents and try to fix it because that I think is one of the

biggest challenges.

And play at least is a way free of guilt to engage parents in interacting with their kids and maybe if we create some kind of broader therapeutic milieu around it, we can make some impact. But I think that's where play's role in mitigating the effects of stress and trauma is as important as the skill development we talked about.

And there's some interesting ideas about how media can play a role, but I'm not sure that's as far along as it is in terms of for skill development.

MS. WINTHROP: Great. Thank you so much. Let's give a round of thanks for our panelists. (Applause) Thank you, all of you. And there are a number of questions that didn't asked, so please come talk to them afterwards.

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