THE BROOKINGS INSTITUTION

WEBINAR

A NEW PATH TO EDUCATION REFORM: THE NEXT CHAPTER ON 21st CENTURY SKILLS

Washington, D.C.

Wednesday, January 13, 2021

PARTICIPANTS:

Opening Remarks:

HELEN SHWE HADANI Fellow, Global Economy and Development Center for Universal Education The Brookings Institution

Panel Discussion:

EMILIANA VEGAS, Moderator Senior Fellow and Co-Director, Center for Universal Education The Brookings Institution

KATHY HIRSH-PASEK Senior Fellow, Center for Universal Education The Brookings Institution

TED DINTERSMITH

Author

"What School Could Be: Insights and Inspiration from Teachers Across America"

ELIZABETH HAAS EDERSHEIM Founder, New York Consulting Partners Adjunct Professor, NYU Tech Global School of Sports Management

VICTORIA SULLIVAN
Former Representative
New Hampshire House of Representatives

* * * * *

PROCEEDINGS

MS. HADANI: Good morning, good afternoon, and good evening. And thank you for joining us to discuss "A New Path to Education Reform: The Next Chapter on 21st Century Skills." I'm Helen Hadani and I'm a fellow at the Brookings Institution with the Center for Universal Education and the Bass Center for Transformative Placemaking. And I'm honored and excited to be joined today by my colleague, Emiliana Vegas, who will moderate our panel discussion today.

And I also have the honor of introducing our distinguished panel of speakers. Ted

Dintersmith, Professor Kathy Hirsh-Pasek, Elizabeth Edersheim, and Victoria Sullivan. Before formally
introducing our speakers I wanted to take a few minutes to give you some background on our discussion
and a brief overview of a recent Brookings report, titled "A New Path to Education Reform: Playful
Learning Promotes 21st Century Skills in Schools and Beyond." The report was co-authored by Kathy
Hirsh-Pasek, Elias Blinkoff, Roberta Gollinkoff, and myself.

And I wanted to just take a moment to thank and call out our collaborators Elias and Roberta who are joining us virtually today.

As we start a new year with hope and optimism we also reflect on how the current pandemic has reshaped our lives. And one of the most marked sources of stress for parents has been remote schooling. Many of us on the webinar today, including myself, know the many challenges of remote schooling. And, unfortunately, distance learning is not working for many children and families, especially those living in low-income and under resourced neighborhoods and communities. And what parents and educators are realizing, now being almost a year into distance learning, is that problems with remote schooling are exacerbations of regular in person instruction. So that is education was not working very well even before COVID-19.

But with crisis comes opportunity and a moment to rethink and transform our education system to prepare all students to thrive. These moments that challenge our society as a whole are also times when we have the greatest opportunity to think about what we are doing and not be satisfied with the status quo.

So here's a quick thought experiment. Think back to what your classroom looked like in the third grade. That's many more years ago than some of us care to remember. If you walked into a third grade classroom today, chances are it would not look that much different. You still have the same rows of seats with students seated looking towards the front, hopefully listening to their teacher lecturing. So it's remarkable how little schools have changed over the past several decades. Yet think about almost any other area or field – technology, business, medicine. Our laptop computers look nothing like they did even five or 10 years ago. Yet American classrooms have been stuck with a factory model of education, which has a very narrow focus on content outcomes rather than preparing students to have the ability to work with others, to critically think through problems, and to systematically apply new knowledge.

COVID-19 has highlighted the power of science. The pandemic will certainly challenge and change how we think about and what is possible in vaccine development. But we can also look to science for answers in what works for education. In our recent Brookings report we present a model for transformational education reform based on the evidence from the science of learning around how children learn and what children learn. When examining how children learn we promote a set of learning principles that children learn best when education is active, with room for discovery and experiential learning, when it is engaging without distraction, when it is made meaningful through connections between new information and prior knowledge, and when it is socially interactive with both peer collaboration and adult support, and when it is iterative with chances to form, test, and revise hypotheses about how the world work. And, last but definitely not least, and maybe most important in today's world, is when learning is joyful.

So these principles emerge in a type of play that we call guided play in which an adult facilitates child led playful activities to meet a specific learning goal. It could be learning about numbers, shapes, colors, spatial relations. To address what children learn, we offer a breadth of skills approach, the 6 Cs — communication, collaboration, content, critical thinking, creative innovation, and confidence. These 6 Cs build on each other systematically and can be found not only in the classroom but also in informal learning spaces in the public realm. Playful Learning Landscapes is an initiative that uniquely

blends the science of learning, placemaking, and community cohesion, transforming public and shared spaces into fun and enriching environments for the development of healthy families, children, and communities.

It's now my pleasure to introduce our distinguished panel of experts that brings expertise and a wealth of wisdom on education innovation, developmental and learning science, business and leadership, and education and policy. It is first my pleasure to introduce Ted Dintersmith, who is an author, film maker, and philanthropist at the intersection of education, career and citizenship skills, and democracy. Ted's recent book, "What School Could Be: Insights and Inspiration From Teachers Across America," documents his travels to all 50 states, 200 schools, and his discussions with students, parents, teachers, and educators, highlighting the very best of U.S. education. How innovative teachers are preparing children to thrive through engaged and authentic learning. In 2012 Ted was appointed by President Obama to represent the United States at the U.N. General Assembly. And in 2018 he won — he received the prestigious NEA Friend of Education Award.

It's now my honor to introduce my colleague, Kathy Hirsh-Pasek, who is the Stanley and Debra Lefkowitz faculty fellow at Temple University and also a senior fellow at the Brookings Institution. Kathy is an internationally known developmental scholar whose research examines the development of early language and literacy, STEM, and the role of play in learning. With her long-term collaborator, Robert Gollinkoff, she is the author of hundreds of publications and 14 books, including "Becoming Brilliant: What Science Tells Us About Raising Successful Children," in which she and Roberta introduce us to the 6 Cs. Kathy is the winner of many lifetime achievement and distinguished contribution awards from organizations including the American Education Research Association, the American Psychological Association, and the Society for Research in Child Development.

It's next my pleasure to introduce Elizabeth Edersheim who has studied, written about, and advised organizations in a multitude of both private and public sectors for over 35 years. Elizabeth was one of the first female partners at McKinsey and Company and she later founded New York

Consulting Partners. Elizabeth now applies her skills and expertise to advising leadership. While also

teaching at NYU's Preston Robert Tisch Institute for Global Sport and the Jonathan M. Tisch Center of

Hospitality. She is the author of "McKinsey's Marvin Bower" and "The Definitive Drucker." And she and

Kathy have had conversations about the development of the 6 Cs with respect to characteristics that

govern how children learn and those that are relevant in the boardroom and how those overlap and

intersect.

It is now my pleasure to introduce Representative Victoria Sullivan, former New

Hampshire state representative, who will share her experience as a congressional leader in education

policy to promote playful learning in schools. Victoria's time in a classroom as a parent volunteer and

running a theater program in her children's elementary school opened her eyes to the significant changes

in education where play was being replaced by a more rigorous kindergarten experience. And this led

Victoria to run for the New Hampshire State Legislature, where she served on the House Education

Committee for four years. As a legislator Victor crafted and sponsored the Play-Based Kindergarten bill,

which became state law in 2018. Victoria currently works for the University of New Hampshire and the

New Hampshire Department of Education through the Preschool Development Grant, which was awarded

to the state in 2019.

And now it's my pleasure to introduce Emiliana Vegas, senior fellow and co-director of

the Center for Universal Education at Brookings. Emiliana is a leading expert on education in developing

countries and has written extensively on issues affecting education systems in Latin America, the

Caribbean, and other developing regions on topics ranging from policies, to race, teacher effectiveness,

to school finance and early childhood development and policies. Before joining Brookings, Emiliana

served as the chief of the education division at the Inter-American Development Bank, the IDB, where

she led a team working in the bank's lending operations and analytical activities to support education

systems throughout Latin America and the Caribbean.

We're honored and excited to have her moderate today's discussion. And, with that, I'm

going to turn it over to Emiliana.

MS. VEGAS: Thank you, Helen. I am delighted to moderate this discussion on creating

a new pathway to education reform with playful learning and 21st century skills at the forefront.

One of the goals of our discussion today is to shift the conversation from what is not working in education to seizing the opportunity that this unprecedented time offers for educators, scientists, and policy makers. So we think how we can create a system that is designed for the 21st and not for the 20th century.

Please send us your questions you have via Twitter by using #21CSReform or by emailing your questions to events@Brookings.edu. If we don't have the time to answer your questions today, Roberta Gollinkoff and Elias Blinkoff will be answering some of your questions in a post even blog that will be published on the Brookings website.

I'm so excited to moderate this panel of remarkable individuals and I promise we will have a very lively discussion.

So let's start with Kathy. The framing of our discussion today comes from a recent Brookings report that you co-authored with Elias Blinkoff, Roberta Gollinkoff, and Helen Hadani, on a policy proposal for playful learning in schools and beyond to prepare students for work and life.

What is the problem with our education system and why did you write this particular piece?

MS. HIRSH-PASEK: Good question, Emiliana, and it will get it launched.

Well, we've known for years that the education system has some problems. And this is globally. In fact, in the United States a piece came out in 1975 called "A Nation At Risk." And when you look at the outcome scores since that piece came out in 1975, nothing much has changed. Just a nudge, but we're not really moving the needle. And many people around the world, including Pasi Sahlberg from — originally from Finland and now Australia, says that it's really that we're too test driven and too narrowly focused on what we're trying to teach kids. So in this factory model it's as if the kids are the widgets and they're coming out widgetized. But it turns out that what the factory is creating is not what business leaders need when they're hiring. So business people are telling us they really can't hire our graduates. And it forces us, as ED21 has done, to rethink what do we want — what do we want from our

graduates, what should a graduate of an education system look like?

I would also argue that our teachers have been handcuffed by this system that's narrowly focused. Not to say that literacy and math isn't important, but to say that if that's all you do you missed the breadth of skills. So we decided that we wanted to present something that was an educational system that could respect teachers, that is more inclusive, is culturally flexible, and can be used to help every child thrive and get 21st century skills.

MS. VEGAS: That's great. Kathy, thank you.

Ted, your book, "What Schools Could Be," showcases how some teachers and schools are engaging and inspiring their students with innovative practices and challenging the status quo. What surprised you most about what you observed in classrooms and from talking to students and educators?

MR. DINTERSMITH: Well, you know, it felt like I owed it to the education community. I have a business background and I always start by apologizing for having a business background, because I'm fully aware of how much of a mess most business people make when they get involved with education. And so I thought it was incumbent upon me to actually get out in the field and listen to and learn from our educators doing the very hard work. So I sort of threw myself into it. And I was blown away. I mean if I had to say insight number one, it's the dedication, the expertise of our teaching force, but also the fact is, you know, that if we want to prepare kids for a world going forward that just has no resemblance to the last century, this isn't nuclear fusion, this is an invention we just can't quite make. You know, we've got teachers all over the country doing these great things, but they're sort of in pockets instead of widely embraced. And I think the teachers know what to do, they want to do it, the students know how they learn best, they want to be in those environments. I think it's really incumbent on the policies we put in place, the priorities we put in place, that often impede the best of our students, and so it to me is not a minor issue — that's why I'm so glad you're convening this forum — it's code red. And I've been on this for some time and when I started I said, you know, like if we don't get school priorities right on a fairly urgent basis, I'm not convinced our democracy will survive. You know, and 10 years ago, during the Obama years, when you never heard about the presidency, people would say, oh, you're way

too alarmist. I mean there's no — that would never happen in the United States. And here we're convening this on a momentous day. And I think today raising the question that democracy is challenged largely because of failed priorities and policies in education, doesn't seem like such a far-fetched perspective.

MS. VEGAS: I'm going to — hold onto that thought and we'll come back to you in a second, but I wanted to move to Elizabeth and mention that, you know, the Brookings report describes what they call — what Kathy and others have called the 6 Cs — collaboration, communication, content, critical thinking, creative innovation, and confidence — as a breadth of skills approach to education.

Given your expertise in advising leadership and years of experience in the business world, what do you see as critical skills that students need for success in the 21st century — work skill?

And do you see that young people are entering the workforce with those skills?

MS. EDERSHEIM: Thank you. I want to start with something Ted said about democracy. When I was working with Peter Drucker he said what let Hitler rise to power was that the economy had collapsed and people were desperately seeking something. They knew it wasn't real, but they were reaching for straws. And it could happen anyplace. The economy has to work, we have to respect ourselves. What does it take for that happen?

We need to recognize that there's technological, demographic, and global transformations that require a different way of working. And when you think about an individual — and then I'll come back to the corporation for a moment — if you — an individual has a 45 year career path on average. Corporations last 15 years. They have to last more than the corporation. Today, about 56% of the people who go to work are disengaged. That means they're there so they don't get fired and they can take their paycheck home. That isn't going to help the economy work, that's not going to help democracy thrive. What does it take? It takes engagement, meaningful interactive, iterative approach and a joyful place. What does that mean? It means that individuals need to come with the 6 Cs to work and organizations need to invest in the 6 Cs.

I can give you examples from each of them, but let me just take a couple for a moment.

Creative innovations — who's taught in business school to experiment, to learn from your mistakes.

Does it matter? It absolutely matters. When you think about 3M and the Post-It Notes, those all

happened because people innovate. One of the companies I worked with is really working around 6 Cs,

and that's the Ultimate Guitar. What they did was they created something called our pitch coach for every

employee. So you have your boss who runs system, but you also have your pitch coach. And on every

Tuesday they have a pitch meeting and every employee has to pitch an idea once every six weeks. And

in those pitch meetings they pick ideas to invest in. So you have to innovate, you have to push, you have

to think about how to communicate those ideas.

A second — if you think about collaboration — this is one of my absolute favorite stories,

is Paul Polman at Unilever wanted to do something on sustainability, but Unilever wasn't big enough. So

he got 30+ organizations in Switzerland, all of whom touched coffee, from growing it to serving it in a cafe,

to collectively come together and they saved 75% of the water that it takes to produce a cup of coffee.

Something none of them could have done alone, but required collaboration.

I can go on about each of these 6Cs with examples out the wazoo, but it really is about

the organizations investing in them and the people stepping into them so they can be happy in their jobs,

engaged, et cetera.

MS. VEGAS: Thank you for that. And moving for a sec back to kind of how you build

those skills in schools, Kathy, in your report you've talked a lot — and in your work about play and

learning through play. How is that different from, you know, just play, free play versus guided play? How

is play important to develop these 6 Cs that you talk about?

MS. HIRSH-PASEK: Well, for us, play — and us being Roberta and me and many, many

of our wonderful students — play is kind of a metaphor for a kind of progressive education this is active

engaged, meaningful, socially interactive, which we take very seriously going back to Liz's point of

collaboration. In fact, I don't know a business that doesn't work on teams anymore or with teams

anymore.

Iterative such that as you look at a problem you see it many different ways. And that

means you can generalize what you've learned to another example later on and create something new.

And joyful. You've got to have the persistence to want to stay there.

It turns out that these skills of playful — what we call playful learning, they don't happen

when you just go romping in the backyard. You're not going to learn to read that way. You have to have

a learning goal. So there's structure to all of this, but it's kind of constrained structure, if you will,

constrained tinkering that allows you to move in an iterative way toward a learning goal through play. And

what are the goals? The profile of the 6 Cs. How do we learn to get along collaboratively, how do we

learn to communicate those goals. The very things that everyone else is talking about.

Let me add just one more point to it, which is that Roberta and I have worked really hard

not to just come up with a random set of playful skills or activities and a random set of 6 Cs, these are

actually all based in science of learning. And the system of the 6 Cs is itself systemic in that it builds on

one another. You can't have communication without having someone to talk to, collaboration. You can't

build content if you can't communicate about it. So you can see the rise in the kind of cyclical way that

allows people to grow.

And the last point I'll make is we've now tried this system in schools where teachers were

very hesitant — oh, my gosh, is it going to work — and the next year coming up and hugging us. This

was of course before COVID when you can't hug anymore. But they hugged us and said, thank you,

thank you, we weren't sure about this. We thought it was a fundamental change to what we do. No, it's

taking the handcuffs off, it's respecting them on themes that they care about and then allowing them to

teach the topics they teach. They still get content. But to also grow the other skills that are so important

around it.

MS. VEGAS: So, Victoria, I'm going to turn to you. Both Ted and Kathy have alluded to

the fact that teachers and students want this kind of learning environment and experience and that

policies and sort of the decisions that policy makers make are constraining them.

What was your experience? You know, what sparked your work in the New Hampshire

legislature to develop the Play-Based Kindergarten bill? And how do you expect that it will change how

teachers are trained and what classrooms look like in kindergartens across the state?

MS. SULLIVAN: I first want to say thank you for inviting me to be a part of this

conversation.

I will tell you, my children are two years apart — they're teenagers now, so this was way

back they were kindergarteners — and in the two year difference between my older child and my younger

child, the difference that I saw as a classroom parent in education was dramatic. They had the same

teacher, same school, same kindergarten classroom, and it had changed dramatically from — in my older

son's class they did a play during the year and there was a lot of guided reading and they got outside

almost every day. And then my younger child, they didn't have time for the play, there was more, you

know, sitting time and there was — it was a privilege if they got to go outside. And I — the teacher

became a good friend of mind and her frustration, being a long time kindergarten teacher, in what was

happening was coming through. And it was difficult for the kindergarten teachers to sort of take on this

new role and these new — we kept hearing rigorous standards when I was in the education committee,

rigorous standards for kindergarten. And I thought, my god, why are we talking about rigor and

kindergarten in the same sentence? Does anybody else see red flags here or is it just me?

So I started to do a lot of research on it and realized that this wasn't a problem in my

child's school or even in our community, this was happening everywhere. And, you know, there were

articles about is kindergarten the new first grade and then there were all kinds of articles about how

disruptive kindergarten had become because children can't be expected to sit for long periods of time at

that age. And I will tell you, the first year that I put in the bill it was not received well. And that's really an

understatement. It was not received well at all. And that was sometimes by former teachers who were in

the legislature who didn't understand the change that had happened. They thought that, you know, I

didn't know what I was talking about. Of course kindergarten is play, you know, because they weren't in

the classroom to see the drastic changes.

But it was through the conversations that we continued to have after the bill failed that got

people to be more aware and gave teachers I think the empowerment to start speaking up, saying, hey,

you know, this is actually happening and we really need some help here. So I did engage teachers and

administrators when I wrote the bill. And the second time around it passed our committee unanimously.

It passed the House. I think it was 357-8. It struggled a little bit more in the Senate, which happens, but

we got it through. So anybody that's trying to work on this, I just want to say, keep at it. But we did have

a little bit of push back from teachers too who were tired of the legislature telling them how to run a

classroom. They had been so restricted in what they could do and they really lost a lot of control, that

when I was — you know, when this did become law — and I did speak to the teachers and no, the intent

is to give your classroom back to you. The whole intent is to give you back the creativity that, you know,

want to bring to your teaching. And I think that now with UNH has embraced the preschool development

grant and has been a great partner to get coaching into the classrooms. And each kindergarten teacher

that we coach becomes an advocate for play. And they start to, you know, teach other teachers about

how this is done.

And we really had to rely on in some cases older teachers because new teachers aren't

learning this way. So these conversations are so important, having people in the field, like Kathy, that are

talking — because she came and she spoke in New Hampshire for us once and addressed the teachers.

And letting them know that they have the support in this is really important.

MS. VEGAS: So let me ask a difficult question that also came from one of our audience

members. And the question is, you know, is this feasible in low-income settings where you have fewer

resources. And maybe I'll turn to Ted, because I know you've been working on this.

MR. DINTERSMITH: Yeah, you know, so this is a topic near and dear to my heart. And

as a result of having traveled all over America and also spending all my time — I don't charge for

anything I do, and so I go where the kids are, not where the fees are, which I think is really important. So

I spent a lot of time in rural and inner city, in Native communities. Here's an important point, right, is that

to a very large extent, when school is boring and irrelevant, then the kids performance is largely a result

of the push and the resources of the parents. When school is interesting, when school taps into the

intrinsic motivation of the kids, the parent push becomes a lot less relevant. And so in my book I write

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314 Phone (703) 519-7180 Fax (703) 519-7190

about the fact that isn't it amazing that kids growing up in the most challenging circumstances, when our education strategies bury them in worksheets, they don't do well. But when you see these schools, you see these courageous teachers — who often, by the way, have to fight against the current to make this happen — that engage kids to take on bold initiatives. These kids actually blow us away.

And so I always ask the question, which is better preparation for life, you know, memorizing how to factor polynomials or what the definition of a gerund is, or a whole bunch of stuff? I mean we can go through an entire litany, particularly of middle and high school. And when I'd say the topic, every single person listening would immediately think school, because they never use it any other time, right. So when that's the essence of school, a bunch of stuff that's in there because it's convenient for the people who design and administer and make money off of these tests, you're largely testing and reflecting the push and the resources of the parents. When you let kids invent and create, invite them to fail, be bold and think outside of the box, honestly, a lot of the kids in the rich communities are allergic to that. They just want to know what do I have to do to get an A. And a lot of times the kids we think have limited proficiency, they're actually like — you're stunned. Oh, my gosh. And people will say — and I think it's offensive, but they'll say I had no idea they had it in them. Well, all these kids have it in them, we just need to let it out and we need to trust our teachers to let it out. Because when I step back and say what's better preparation for life, you know, inventing and creating and carrying out bold initiatives or knowing the difference between opposite and (inaudible)? You know, which is better preparation for life? And people will invariably say, oh, well, of course.

You know, I did this film — I started with this film, "Most Likely to Succeed," where you worked backwards from the citizenship and career requirements of the modern world and then show education environments where kids are working collaboratively on big stretch across discipline projects with teachers, trusted to teach to their expertise and passions. When people see it, when they get that vision in their mind — and we've done 10,000 community screenings in, you know, 25 different countries, so a lot of people have seen it. They just say, man, that's what we want, right, that's what we want. And yet we so seldom let that happen. And so I think we just need to start trusting our educators to run with

things. And I think we'll get later today a key is rethinking assessments. You know, Victoria, I spent a lot

of time in New Hampshire. When they switched to competency based and performance based, that was

a big step forward.

So I think if I had to emphasize anything, I'd say we need to be educating with a look

forward instead of just continuing to tinker around the edges of the school we all inherited.

And then the last thing I'll say is so I'm probably — I'm certainly the oldest person on this

panel, and maybe out of the thousand-plus people signed up for this, I'm probably the oldest person there

— people will say school hasn't changed in 50 years, 60 years. Here's how it's changed. First, when I

was in school we all took hands on courses. We had to take shop, we — our innovation is let's get rid of

anything hands on and just do college ready. Well, that's a great idea. But the second thing is when I

was in school, school was like half of my life. I had another half of my life to do whatever the heck I

wanted to do. When you talk to kids in school today, school is 125% of the — they're not getting enough

sleep. So we've taken all that time for kids to play and explore — and I will put in, I have no tie to

Brookings, I have no connection at all — the report that Kathy and Helen did is extraordinary. And

everybody should not only read this, but get this in the hands of your governor, your state legislators, your

school boards, because it in a really powerful way makes the point about what we need to be prioritizing

going forward.

MS. VEGAS: Thank you for that. And you alluded, Ted, to the issue of how do you

evaluate or how do we change these evaluation (inaudible). And we got a question from one of our

Twitter audience members, Joe Hallgarten, who asked are there any evaluations available of the work

you, Kathy, and your colleagues have done with teachers on the 6Cs.

MS. HIRSH-PASEK: Yes, there is a little. I just wanted to introduce everyone to a school

— and I think this will answer both of your questions, the last two questions, Emiliana — this is a school

in Grand Rapids, Michigan, and it is an under resourced area where 80% of the students are free lunch

and where 80% of the school is Latinx. And they have the most incredible principal who had caught onto

reading Roberta's and my book, "Becoming Brilliant" and she said, "I want to create a 6 C school." So we

ran an experiment there that was cut a little bit, you know, short by COVID, and it's called the Godfrey-

Lee School, kindergarten, first grade, and second grade.

So we decided to look at the outcomes on three different levels. Some of the teachers

were randomly assigned to go into the 6 C classrooms and some of them were randomly assigned to go

in the non 6 C classrooms. And we wanted to know what would happen. Here are the three levels. We

wanted to know, first, using something called the tripod measure, which we adapted for this study, could

we look at outcomes in collaboration, communication, could we look at creativity, critical thinking,

confidence — which is really our grit or perseverance — and content as well. What would happen as far

as the teacher evaluation if we went and asked teachers, what did you think? And what would happen in

standard outcome scores, the standard scores that they give in Michigan?

So Godfrey-Lee, they marched forward with this idea and what happened? Now, I must

tell you that within a year none of us expected the standard scores to go up. That is, none of us. It just

wasn't enough time. But what did we find? They inched forward. This was unheard of. And then it turns

out that not only did they inch forward, but we didn't have the summer loss in math and in reading. I

guess when you have motivated people, like Ted is talking about, they learn more and they learn better.

What about the 6 Cs? Well, on the report from the kids themselves, they said, yeah, our

classrooms changed. We feel like they're more creative, we feel like they're more collaborative now. And

what did the teachers say? Thank you, thank you. We enjoy teaching again.

So is this possible? It is. We've come up with training programs that use thematic based

learning. And the only other thing I'm going to say about it is it works in suburban Philadelphia non under

resourced environments just as well. And they're bragging about the 6 C approach. And it works in my

college classroom as well. I think when we build whole people they learn not only the 21st century skills,

but they also learn to think better, and that translates out into some of those tests that are required.

So we have to change the assessments because it has to be about whole people, not

just about narrowly construed things.

MS. VEGAS: I mean that's a really nice segue. We got a question from our friend, John

Goodwin, that's basically asking what role will high stakes content testing play in sustaining the old

factoring system, and what are the alternatives, you know. So do we have new tests that we can apply

readily? Is that a known way of us testing the 6 Cs?

MS. HIRSH-PASEK: Well, as I said, we've modified the tripod test to do it. ED21 is

another group that's out there that has done a really good job of looking more broadly at what schools

want a graduate to look like. And then once you figure out what does success look like, then we adapt

and we use some of the instruments. And I know ED21 has some of those instruments as well, to be

able to look at it.

Look, what we don't want to do is define success by what tests we have on our

bookshelves. We want to first define success and then we want to adapt or create new tests that really

get at creating a whole person and 21st century skills. Because right now, as Liz told you, the businesses

don't even want to hire people. Our nation is still at risk.

MS. VEGAS: Elizabeth, in your work with — you mentioned how workplace should also

be developing these skills, because obviously the whole burden shouldn't be on teachers, on educators.

So the question to you is have you seen workplaces do this well and what would be some of the ways in

which they do this, you know, during the —

MS. EDERSHEIM: Yes. So a couple of illustrations here. I mean first of all, you have to

tell a story plus get data. There are some examples we all know. So WeWork can tell a story, but they

can't work with data, what happened to them, right. Wells Fargo can work with data, but they can't tell a

story, what's happening with them. It's Southwest versus United. Southwest can do both. When you feel

it as a customer, you see it in their employees. Their investing in their employees telling stories,

connecting the dots, collaborating. And they also are worried about the numbers.

There's a Danish company that, you know, has that crazy Danish thing where they think

all people matter. I think it's called danthe force (phonetic) or something. And one of the things they did

before COVID was they randomly assigned people to have lunch together, from the CEO to anyone else.

So you have lunch and as an output of your lunch you have an idea that you submit about how the

company can be better. Now they're doing it with matching for coffee on Zoom. And the number of ideas that came from that, how they're being put into play, is phenomenal. It's really taking a mindset about caring about creating tomorrow, not learning from the — learning from the past, but that's not enough. Learning for tomorrow and for the people.

MS. VEGAS: Let me turn to Victoria because a lot of — a few of the people in the audience have submitted questions around, you know, this all sounds great, but how do you get this to be at scale, how do you get policy makers, administrators, and teachers on board. And I know you struggled. You mentioned a little bit, but tell us more about what you learned in the process.

MS. SULLIVAN: So we've actually — I've been contacted by legislators in different states who want to pick up the wording of our bill and get it into their states. They've been working at it.

Of course COVID interrupted a lot of things, including their work. But I will briefly read you the language of the bill. It's very easy and it's very small, so I need my cheaters.

Standards for kindergarten shall be play-based and have the following components, movement, expression, exploration, socialization and music. Literacy shall be developed through guided reading and there shall be unstructured time for discovery of each child's individual talents, ability, and needs.

And that was — believe me, people tried to muddy it up a little bit and make it more complicated, but we fought really hard to keep it simple. And with those standards that gives the teachers so much room in their classroom to make it what they want it to be. And so you really have to engage all the stakeholders. You need to educate parents. Like I said, the bill didn't go through the first time, but it gave us the opportunity to educate people as to why it was important, and getting parents on board to understand that it's not just play, it's education through play. They're actually learning and they're learning better. And they're learning in a way that actually impacts them for a longer period of time. And so once you get parents to be advocates for play, that's — then you get the teachers. You've got to get the teachers on board too, but most teachers are, and then the parents talking to the administrators. The administrators really need to be on board. And when we're talking about, you know, assessments, we

need to change the way we think about those too. It's not always a paper assessment that we need to

have.

You know, my intention is to make this kindergarten bill be actually K through 3. I would

love to see K through 3 and have it expand. But we really need to support the teachers on the ground

and let them know that, for the administrators a chatty room with movement in it is a positive thing. It

doesn't mean that the teacher doesn't have control over the classroom. And educating parents that this is

really an important way for their children to learn. And just get all the stakeholders on the same page.

So education — which is again why this is so important — education is the biggest

component of getting this to be — to work across our nation.

MS. VEGAS: Thank you for that. I'm going to go to Ted, who I know wants to comment

on a few things, and then I also got out a question from an audience member for you, Ted.

So let's start with assessment.

MR. DINTERSMITH: Well, you know, I always ask for —you know, like we are awash in

data. It takes up a lot of the discretionary dollars in education. And I always ask why do we not collect

data on how much kids actually retain a few months after they take these tests. And we don't. You know,

it happens in spot places and when you do that you find that most of what we think kids are learning is a

mirage. And you look at like the early grades where we tend to get things a lot more right than wrong.

You know, when kids get really interested and engaged they absorb it, they learn at warp speed.

Whenever I want to get people excited I just say visualize some four and five year olds, right. They have

the exact perspective and sort of mindsets you need in the modern world. They dive into things, they go

deep, they learn joyfully. There is a lot of play behind it. And yet you'll hear people say oh, no, no, no,

we've got to get those layers on before kids can actually do anything.

And I always say like, well, just spend some time with a 5 year old who's fascinated with

dinosaurs and ask them about content, right. I mean they can spell pterodactyl. You know, it's like they

pick up content when they're interested. But we have it all wrong, we say we need the content first and

hope that kids survive this process and remain curious and interested and joyful learners. And, guess

what? They don't.

You know, so that I think is — when we start to look at data we need more balance, we

need to really understand what's truly learned. I think we should go more toward audited, you know,

survey types of approaches. You know, like you do piece on a limited basis just to see some trim lines.

We can do that. But I think what happens when you decide it's all about the data, you know, I always

begged legislators — and Victoria has, but many, many haven't — I suggest look at the practice

questions on your state mandated exams and then ask, do you use this as an adult. And the answer is

you don't use it as an adult.

And I also say that if we made our — sorry, Victoria — state legislators take the tests

that keep kids from graduating from high school in their state and publish their own scores, those tests

would go away in a hurry.

The second point, and I'll make this quickly, on scale, I've seen school districts change

quite quickly. I've sort of adopted three states — Virginia, North Dakota, and Hawaii where people at the

top trust teachers to create more distinctive learning experiences and evaluate students on the basis of

what they produce and create. And it doesn't — you know, if you give people leeway and support to do

what they passionately want to do, what they entered the profession to do, and let students take on things

they think are actually important, amazing progress happens. And yet we lose so much progress and

momentum and actually impair kids for life because we've somehow decided we know what they have to

learn, instead of caring about whether they are learning. Because the 6 C framework that Kathy and

Helen write about in such a compelling way, there are so many ways to develop those skills. And if just

said we care about the ultimate skill set and not about whether they've checked this box or this box or this

box off along the way, you know, that's how we're going to empower these kids.

MS. VEGAS: You know, you actually addressed the question from the audience member

with that comment, because he was asking, you know, what does it look like when you empower teachers

to do what they know best to do, you know. So thank you for that.

MR. DINTERSMITH: I'm not putting in a plug, because everything I do is free, but if they

go to my website, whatschoolcanbe.org, that's got a link to the film "Most Likely to Succeed" that shows it, but it also has a documentary produced by a team in Hawaii about the work they're doing that — we have this resourced called — appropriate for this forum — innovation playlist with an emphasis on making it more joyful. And a group in Hawaii did a documentary on once you trust teachers to run with it, what happens with student engagement, student mastery of real skills. And what happens with teacher morale in a sense that teachers can collaborate and work as teams on things. It's night and day. And I just say I find video particularly effective for capturing and communicating what can be done. But check it out, because when you see it in front of you it's very hard to go back and say oh, no, no, no, we should do what we did before because that's where we're going to be in big trouble as a country come September if we just say, thank goodness, time to get back to normal, you know. Because that's not where we want to

MS. VEGAS: Kathy, you've seen a lot of this in small — in schools and in classrooms. Can you tell us a little bit about what you've observed and, you know, this confusion between play and rigidity, or structure. Can you have structure without, you know, rigidity?

head at it.

MS. HIRSH-PASEK: Right. I mean playful learning is very structured and very well thought out. Go to any Montessori classroom, go to a children's museum, you'll see there are clear learning goals here. And the way we think about it, it's, as I said, active engaged, meaningful, etc., but what does it look like, what does it look like.

So I want to take you on a little trip and then, Ted, you get to take a trip too, because you'll have to give your examples because you have so many more. So, again, it was a thing like — Victoria, you've seen it — the people saying, oh, my gosh, I don't know if this will work. And then I went back to Westchester, Pennsylvania and I walked in the classroom one day, because they invited me, they were so excited, I had to see this. So one of the schools was doing weather. And I walked into this classroom and there was like a low level chatter throughout the classroom. One little girl was standing in front of a map of the United States, another little boy had boxes pointed to this child who was in front of the map, another girl seemed to be copiously taking notes. I said, "Wow, what's going on here?" And he

goes, "Shhh, you're about to hear the weather report." The girl in front of the map says, "Oh, my, we have

a low pressure system that's coming from West to East across the United States. Apparently we're going

to have precipitation in three days." Now, I'm listening to this. These kids are 5, what do they know from

low pressure systems, what do they know from precipitation? Now that's a high level vocabulary term.

Okay, so I walk over to the next table, again these kids are deeply involved in what they

are doing. What are they doing? The teacher has given them some circles of different circumference

and little droppers. And as groups of four they were to figure out how many drops of water fit into the

circumference of the circle that was one inch, two inch, or three inch. And when they were done they

were graphing it. That kind of sounds like STEM to me.

In the other school that I visited they were doing fairy tales where the children asked me

to sit down and be the audience, which of course I did quickly. And they told me that they were going to

be do something that seemed to be some crazy story that I couldn't quite put together about bears and a

little girl who had a red cape on. And I said what are you doing, and they said oh, we're inventing our own

story. Have you ever heard of a mash up.

All right. What happened in the standard scores in the Westchester school? Well, they

went up. For all of the classrooms that had experienced this relative last year, the standard scores went

up, they had less retention in their classrooms, so everybody was graduating more, and the writing skills

were better. And, yes, Ted, they could use what they had learned in new circumstances.

MS. VEGAS: So I want to ask a question that came from the audience, but I think is very

timely, because we are in a situation where many — perhaps most schools around the country and the

world are still closed and doing remote learning. Are there any practices that you've seen that are

working in the remote learning environment that are worth keeping post COVID when we can reopen

schools?

Maybe I'll go to Ted.

MR. DINTERSMITH: Well, you know, I've circled back to a lot of the people I've written

about or done films about, you know, where students have voice and the skills to manage and direct their

learning, where the learning is authentic, where they're doing something they believe is important. And

does everybody feel some degree of stress and anxiety over the last eight months? Absolutely. I mean

this has not been an easy period for anyone. But consistently they say in those circumstances kids

continue to learn quite, you know, effectively. And so I feel like it's the same old thing, we know what to

do, right. But when you say it's more the instruction driven, cover the curriculum model and you try to — I

think Kathy said it in the intro — or Helen — it didn't work well in person, it's a disaster on Zoom. And so

I think that coming out of this — and it really sort of pervades my thinking, because I think we have this

enormous opportunity going forward to build on what has worked, to have it be accentuated.

I think parents are more in the know. I mean, boy, parents do it — if parents were

grateful to teachers before, I think they're triply — you know, exponentially grateful to teachers now, but I

also think parents seeing what they're kids are doing at home start to say, hmm, I never used that as an

adult. Like, well, why are you doing that? I mean that — it may not make much sense. So where I found

the things that are really working where you give — you know, it's not so much — I mean because it's a

very exhausting time for teachers, and so I'm really deeply grateful for their dedication and commitment in

an extremely challenging time, but I think the teachers that are making the most of this are the ones that

are restoring some degree of fulfillment and joy in the profession as they challenge students to take on

things students care about. So they're getting lots and lots of great student learning without having to be

doing Zoom calls until, you know, 10:00 p.m. or something like that.

So I think we've got, you know, plenty of — there's never been a shortage of great

examples of learning experiences in the United States. And that's why so many other countries come

here to understand the best of what we do. And then they leave and say well, why aren't they doing that

broadly. I think that's a fair question (laughing). So I think that's our opportunity to really make sure that

the narrative going forward is we can do this, we know how to have kids learn joyfully, we know how to

restore the important values teachers enter the profession to do. We have great appreciation for what

they're doing.

And I think — you know, by the way, I mean if anybody on this call has Miguel Cordona's

ANDERSON COURT REPORTING 1800 Diagonal Road, Suite 600 Alexandria, VA 22314

Phone (703) 519-7180 Fax (703) 519-7190

ear, beg him not to do another round of standardized test in the spring. If I had one thing to beg for, I'd

say ask school districts and states to use these next four, five, six months to pilot alternative assessments

because those tests never told us much in the first place and this spring they will tell us nothing.

MS. VEGAS: Let me turn to Victoria now on, you know, what can we do system wide.

MS. SULLIVAN: So because we've got the PDG Grant and we're using that funding with

our coaches, we actually have our cadre of kindergarten coaches who are using Zoom calls to still coach

teachers in play and how to get the lessons to the children, but have them take them off of the computer

and use play in their classroom.

I'll also say that this is a great opportunity for parents to become more involved in their

children's education. Play isn't just up to — you know, teachers aren't the only people that can educate

your child through play. And a lot of parents probably do it without even realizing it, but it's a great

opportunity with all this family time to let your children take you on an exploration and let them teach you

what they know about things, but lead them down play. And there are organizations and there are

websites that can train parents in teaching through play as well.

MS. VEGAS: And that is actually a really good point about, you know, what can parents

do.

And let me to turn to Kathy, because actually one of our audience members, Ines, asked

what can parents do at home to support the development of the 6 Cs?

MS. HIRSH-PASEK: Well, I think the most important thing we can do as parents at home

is be aware. This is a change of mindset. If we went into this year thinking that the only thing that was

important was making sure that the kids reading and math scores went up on a standardized test, then

we're not going to get there. And, frankly, it's really hard to be a parent — or I speak as a grandparent as

well in trying to do that. It's much easier to say let's have some fun with books. And when you read those

books and you have fun with them and you act them out and you play charades and the kids really

understand what they're reading and you have discussions with the children so that their communication

skills are now strong enough to be able to feed into what they're going to do in reading. And let me add

ANDERSON COURT REPORTING
1800 Diagonal Road, Suite 600
Alexandria, VA 22314
Phone (703) 519-7180 Fax (703) 519-7190

that being bilingual or trilingual is a good thing. So having your home language as a base is a very good

thing.

And there are many activities that we can play with. By the way, cooking. We've had to

make a lot more meals these days. Let's take the theme of cooking. How many eggs do you need, how

much oil do the cookies need. And if you just use that as a math lesson, they're learning sophisticated

stuff. I mean my little five year old told me the other day she was learning fractions from what we were

doing by talking about cooking examples.

So I just wanted to say that this is an opportunity for all of us to help teach in the way

human brains learn. And I think a lot of teachers have already been there, but they get handcuffed. And

if we use other methods, like observations, and we allow ourselves to have the freedom to, as I say, be

culturally variant and more inclusive, I think there's no limit to what we can do in our schools.

MS. VEGAS: Well, we have a couple of minutes left and I want to turn to Elizabeth just to

very short say, you know, we want to transform education, how can the business side help in that

process. You know, what kinds of partnership could be established?

MS. EDERSHEIM: Well, my own sense is business wants this as much as anyone. In

February I was at a leadership conference at West Point and to break the ice they were going around the

table saying what keeps you up at night. The third person of about 30 said the education system and

then the next 27 also said the same thing. That's what keeps them up at night. They care about where

they're going.

I think going to those organizations and asking to work with them on these issues is

exactly the right way to move it forward.

MS. VEGAS: I'm sorry, I'm just — Victoria, short, what can we as citizens do to get

policy makers and decision makers to pay attention to this and to really do the kind of work you did when

you were a representative.

MS. SULLIVAN: You should look to New Hampshire, because New Hampshire is leading

in this. But you really need buy in. Our commissioner of education, our deputy commissioner of

education have been all in on this. Like I said, UNH has partnered with us. And it's really about getting

out and educating all of the stakeholders about how important this is and really what the payoff is down

the road. I mean this is really important work that you're doing. You say play and people all of the

sudden start to think, well, you know, they're not learning anything. And that's really our task, to

education people in knowing that that is the best way that children learn and they will get the most out of

being taught that way.

MS. EDERSHEIM: Sorry, I just want to add one more thing here. It's not just getting

hired, it is your career path for life. And organizations need to be investing in that too. So many people

start at a job and never go up. And this is really about lifelong learning, it's about taking those 6 Cs and

embracing them forever. So it really is an effort in concert.

MS. VEGAS: Well, thank you all so much. We've reached our one hour mark and I want

to be respectful of everyone's time commitment to joint us today for the beginning of a conversation. I

think this is a very important conversation that we started here.

Thank you to Kathy and her co-authors for the wonderful report. And of course to our

wonderful panelists, Ted, Victoria, and Elizabeth, for joining us today at Brookings for this conversation.

And all our audience members, we hope you continue to engage through our Twitter chat that we're going

to have and answer your questions with the rest of the co-authors.

Thank you.

* * * * *

CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when

originally transmitted was reduced to text at my direction; that said transcript is a true record of the

proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the

parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative

or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise

interested in the outcome of this action.

Carleton J. Anderson, III

(Signature and Seal on File)

Notary Public in and for the Commonwealth of Virginia

Commission No. 351998

Expires: November 30, 2024