THE BROOKINGS INSTITUTION
FALK AUDITORIUM

NOT YOUR GRANDFATHER'S LITERACY:
SCALING HIGHER-ORDER SKILLS FOR THE 21st CENTURY

Washington, D.C.
Monday, September 8, 2014

PARTICIPANTS:
Featured Remarks:

AMANDA RIPLEY
Author, *The Smartest Kids in the World*
Investigative Journalist, *TIME* and *The Atlantic*

Moderator:

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

Discussants:

JAMIRA BURLEY
Executive Director, Youth Commission
City of Philadelphia

CORY HEYMAN
Chief Program Officer
Room to Read

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P R O C E E D I N G S

MS. WINTHROP: Okay, great. Hi, everybody. Good afternoon, I'm Rebecca Winthrop; I'm the Director of the Center for Universal Education. It's a real pleasure to have you all joining us for a number of reasons. We've got a stellar panel who I will introduce momentarily, but also we are the very first event in a newly renovated auditorium. So kudos to International Literacy Day. And I've been told that in case -- to tell you that in case there is any logistical technical hitches. So far so good. We're not going to do anything fancy. We're going to, you know, break the new auditorium in slowly over time, right Matt, right Steve? (Laughter) They're in charge. But we are here to talk about a really important issue. It is the 48th International Literacy Day. UNESCO started this oh so long ago, 48 years ago, and of course ultimately it's really around -- has been traditionally around literacy and reading and the importance of reading. And I know certainly one of the first early education books that inspired me to go into education was Paulo Freire's, *Pedagogy of the Oppressed*. And that was all about sort of the power of naming your world in your own words and fundamentally about literacy. And so we have actually done various Literacy Day events here at the Center for Universal Education, and this year we decided to get a little bit creative and use International Literacy Day as an inspiration to talk about the skills and competencies that young people need in the 21st century. And I believe the title, which I can't totally remember, but, Not Your Grandfather's Literacy, right? And we -- I have a very good colleague, Seamus Hegarty, from the audience who is a sort of world renowned expert on learning who took great offense at that being a grandfather. He said, what do you mean? I'm not stuck back in -- what was it, the early turn of the century? So if we've offended any grandfathers in the process -- Seamus, apologies. But really what we meant is to say we want to frame the conversation around what's the vision for the future for education for our young people,

literacy, and what other types of skills are we going to come to think of as essential as literacy as we move into the future. This idea of sort of the fundamentals, literacy and numeracy, has been around with use for decades and decades. Is it time to revise that? Is that -- time to expand our idea of literacy, so think about a range of other things.

So with that in mind we have a great pane who'll introduce not in great detail because you have their bios in your program. But first Amanda Ripley who is a good friend and New York Times best-selling author. And her new book she's been travelling around the world talking about, *Smartest Kids in the World--and How They Got That Way*. It's a great read, a fast read. I have a problem of getting like 95 percent of the way through books and never finishing them. I never did that with Amanda's book. It was a great read. So if you haven't read it I highly recommend it. She's an award winning journalist, and funnily enough -- because you're very now a well known education journalist, she started off her career avoiding education, didn't' want to do education stories, didn't want to kind of cover education stories, was afraid of being pigeonholed as the soft journalist; education was seen as sort of a soft women's issue. And she started her career off doing lots of things including sort of disaster response. But anyway we're glad you found your way back into the education sector.

Next to Amanda is Jamira who is an absolutely inspiring young person. You will be able to see that on the panel but I would also recommend anybody who wants to grab her and talk to her afterwards do so. She has an incredible personal story. I've been lucky enough to engage with her around the UN Secretary General's Youth Advocacy Group, but she's also the Executive Director of the City of Philadelphia's Youth commission which is a government agency, which she leads on a whole range of topics including youth perspectives on education in Philly. And she has like Amanda, you know, U.S. grounding and international perspective as well.

And then we have Cory Heyman who is the Chief Program Officer of Room to Read which is a wonderful organization dedicated -- obviously with the title Room to Read -- to literacy and actually just won the Rubenstein Literacy Award I think two weeks ago. So, you know, lots of awards for Room to Read because it is a new NGO that has an interesting sort of organizational program model. But, Cory, you also like all three of your colleagues up here have sort of U.S. past in education and done a lot overseas, having worked on the Hill here in D.C. and on education issues in the past as well.

So a great panel. And what we want to do is have a conversation amongst the panelists. You know, having Amanda really kick us off principally at first and then with all of you. So let's get it underway. So, Amanda, let -- before we did into sort of, you know, what skills and competencies -- or should we expand our definition of literacy? Should there be a new set of literacies that are sort of essential for the 21st century for our young people? Could you set the scene for us a little bit? Like what is the context? You know, if we're talking about skills, skills for what? What is the world going to look like, is it the same, is it different, how is it different, what does that mean?

MS. RIPLEY: Okay, so thank you for having me here; it's great to be here with you. Usually we meet for lunch --

MS. WINTHROP: Yes.

MS. RIPLEY: -- and we have these same conversations but no one else is listening so it's -- and thank you all for being here.

So in the last really very recently five to ten years it's gotten much harder to predict what kinds of jobs will be out there, much harder than it was before even which was hard. It is not probably easier to predict fashion trends than jobs which is a weird thing. So the reason for that though is interesting. It's a story that I think is well told in a

book that we've talked about called, *The Second Machine Age* that came out earlier this year that I recommend by two MIT professors. And the idea is that in the past literally five to ten years we've seen a kind of inflection point, right, in certain kinds of technology that we didn't really necessarily expect. So to give you an example if we -- you know, ten years ago, not that long ago, experts were pretty pessimistic that we would be able to create a driverless car. I mean the complexity of driving was such that after having spent many, many years and millions of dollar on trying to do this we just really weren't making much progress. And then very suddenly, you know, the curve went sort of like this. And now every major car manufacturer is working on driverless car systems and we obviously have driverless cars functioning right now. So this kind of thing, the geometric really expansion of not only download speed but storage capacity and microchip processing, all these things have created a world in which yes, we always -- we knew change was happening and so forth, but there is this kind of escalation in artificial intelligence and in robotics in particular that has made it harder to predict which jobs will be automated, right. So that's wherein lies the fog. And I think if we visualize ourselves heading towards a thick blanket of fog that is probably the right visual. Now the thing is you can prepare for fog. Like you can't predict what's going to happen to you in the fog but you can certainly, you know, wear sensible shoes and bring a flashlight and, you know, do different things to prepare for it. So even though there's unpredictability doesn't mean there's nothing to be done about it. The things we do know about what two categories of jobs seem like they will hold or if not grow, the two categories are non routine cognitive work, like the kind of work most people in this room do, the kind of work that involves analyzing data, looking for patterns, making decisions, all those kinds of things. And then the other category would be non routine manual jobs, so the work that the baristas at Starbucks are doing, right. So you have baristas and you have let's say data analysts,

right. So those are two categories that we think will grow. And obviously of those two the much more lucrative, interesting work is the data analyst and knowledge worker, non routine cognitive jobs. So then the question is how do you create bridges from one to the other, how d you get more people into that category? And we can talk maybe about that. But that is what we know about what the future holds because there are actually routine cognitive jobs that we thought would still be around that probably won't and many industries are experiencing that.

MS. WINTHROP: Like what? Accountants, tax preparers?

MS. RIPLEY: Lawyers, lots of lawyers, no offense.

MS. WINTHROP: Don't go to law school, don't go to law school; tell your children.

MS. RIPLEY: Not all the lawyers, but some. Not all doctors, but some.

MS. WINTHROP: I'm joking. I should --

MS. RIPLEY: You know, there are cognitive routine jobs out there are going away faster -- not going away but diminishing in certain areas faster than we might have predicted.

MS. WINTHROP: I remember in *The Second Machine Age* book one of the things that it talks about is the automation of tax preparation and that that's a whole industry sort of not totally gone but almost.

MS. RIPLEY: Shrinking.

MS. WINTHROP: Right, shrinking, right.

MS. RIPLEY: Right, shrinking dramatically. And some of it's just the job changes. Like in our jobs.

MS. WINTHROP: Right.

MS. RIPLEY: Well, in journalism, you know, the job has radically

changed and has shrunk in some ways, grown in others, but it's radically changed. So which leads to well, then what do you do? What do you pack in your like backpack as you head into the fog? I mean you know that you need -- you know that you will need the ability to adapt very quickly. So then what does that mean? Well, that means the ability to think critically for yourself, to solve problems you haven't seen before, to make a cogent argument, to make judgments with imperfect information. And then well, how do you get those skills, right? Like what's the secret sauce for those skills? Obviously we don't know exactly but we know that unfortunately academic rigor is a prerequisite for most of those skills. So there is not kind of shortcut around -- increasingly I think there's no shortcut for having a pretty solid foundation of academic mastery. Now it used to be you could kind of short cut some of that, but increasingly in order to convert creativity and persistence and all these great non cognitive skills into actual execution you need to have that base, and the base is higher than it was before. So when I say "unfortunately" I guess I mean the job has gotten much harder of trying to give kids, virtually all kids the skills they need to thrive. At the same time it's I mean in weird way much more meritocratic if you look towards the future potentially. Increasingly companies won't need proxies to figure out whom to hire. They won't need -- they don't need a piece of paper from a certain college or not or a certain citizenship or not. They won't need that because they can just have you prove what you know and what you can do. And you see that happening already, right, where, you know, many, many high tech start-up companies really -- they're really not super interested in where you went to college or what your GPA is but they want you to fix this website that they are literally working on right now and see what you do. And they want you to take this test. And they do this all the time, right. And they want to see -- there's now a company called Knack, K-N-A-C-K, it's a start-up that uses gaming to figure out your persistence and your self control and

other kinds of non cognitive skills which I'm sure we'll talk more about that we know are incredibly valuable but didn't typically show up in the proxy metrics that we have, like SAT scores. So in away it's more meritocratic. In another way the further along you get through your life without developing a foundation of skills the harder it is to kind of ever.

MS. WINTHROP: And of the conversations that just on this very topic that I had I was recently on a trip in Silicon Valley and was visiting with the head of research at Google and was talking about some of these issues and one the things that he said they are most perplexed by is that the criteria for hiring -- their old criteria for hiring at Google is one that cannot predict who's going to be successful in their company. And in fact what they find to be most useful is learning agility. And actually now Google I think 15 or something percentage of their employees don't have college degrees. So I mean --

MS. RIPLEY: Can you test for learning agility?

MS. WINTHROP: I have no idea. We need to find that out don't we? (Laughter) What about -- let me ask you, Cory, for a quick reaction on what Amanda has just said because this is a really different world from even when I went to school, nevertheless when you went to school, Seamus, and the grandfathers in the room -- I'm going to keep teasing him all day on that.

MS. RIPLEY: I think we should say "grandfather" at least 10 more times. I mean I can name -- do three more. (Laughter)

MS. WINTHROP: But I'm thinking about my own little boys, right, who are -- you know, one started preschool, one is in first grade. Like this is a whole other, you know -- it really is a fog. I hadn't -- you know, how do I best prepare them. But of course I'm here, I'm in the States, you know, in the land of self driving cars and the group that invented them. Is this really a big concern for places where you work, Cory? Like is

this just a sort of developed world concern or is the fog not there and it's totally a different picture for, you know, low income countries?

MR. HEYMAN: Thank you very much, Rebecca. And just to add to the grandfather motif when Rebecca asked us to participate on International Literacy Day I didn't realize we were going to be talking about grandfathers, scalability, sustainability, multiple literacies, and so Rebecca has once again raised the bar. But very happy International Literacy Day. I think that because we live in a global world that the issues that are challenging us here in the United States are exactly the issues that will challenging us around the world. I think that the difference is that there a farther -- there is a bigger gap between what we need to do in the United States to achieve those goals and what needs to take place in a lot of the world where we work, which for Room to Read primarily in Africa and Asia. And I think that the -- we can be starry eyed about the skills and I think that Amanda is absolutely right about the fact that it's learning -- or, Rebecca, you said at Google learning agility, but adaptation, being able to look at an issue critically, which means identify both sides of a problem and being able to be logical in thinking about solutions. But I think that we can't become starry eyed to think that we can get there as Amanda said without starting with the foundations. There is no shortcut; Amanda said no shortcut to academic mastery. And for us at Room to Read the challenge is ensuring that children have those foundational reading and writing skills and for other organizations that also focus on numeracy because it's exactly those skills that then enable children later on to be able to be successful in developing the other skills. And it's not just because reading is so ubiquitous. It's not just because text is everywhere and to be able to complete a contract or to be able to read instructions in manual or to diagnose a problem requires actual numeracy and reading skills, but there are cognitive processes associated with reading volume, the amount of reading that a child does, the

amount of math that a child does that gets to issues such as logic and reasoning and analytical skills and vocabulary that's important for being able to understand the world better, that is so important for being able to be successful in some of these higher order critical issues. And it's those issues that are often missing in the countries in which we work and that are so critical. So that the earlier a child learns to read or to be able to compute and understand spatial awareness with mathematics activities the more likely that child will be to develop the habit of reading, for there to be cultures of reading, and then to be able to work on some of these other issues. And although they're not necessarily completely serial, children need to develop to a certain level, or children and adults need to learn to a certain level before they are able to then be able to address some of the higher order issues. So I think that again it's that much more work that needs to happen in the countries in which we work.

MS. WINTHROP: I mean I assume people in the programs where there's Room to Read are not worried about, you know, automating tax preparers' jobs. Like that's not a concern. But what are the other sort of, you know, akin concerns in terms of the way the world is developing?

MR. HEYMAN: I think that because we live in a global world a lot of the jobs related to automating tax preparation is evolving in the countries in which we work. A lot of the outsourcing that is done takes place in the countries in which we work. And so where a village in rural Zambia may not be ready for driverless cars yet, there's certainly the potential engineers of the future who can be involved in those activities. And so once people develop those schools as Henry Ford said, once people have those skills and have those resources that economic development will also evolve in a way that they will require the same technologies that will make them part of the world system as well.

MS. WINTHROP: Yeah. And maybe that's -- I think you brought up

something really important which is sort of the time sequence because I -- you know, a lot of times when you have this conversation people who work in the developing world say, you know what, that's not our problem, that, you know, we're not there yet. We have, you know, different sets of issues. But I think you're right, Cory; I think it's probably just a question of what time horizon are we talking about. You know, is it two years, five years, ten years, twenty years out? Probably it's going to be a -- you know, the conversation in the U.S. is today, it's absolutely happening today. Probably in certain areas of developing countries, you know, it is also a today conversation, but soon, very soon, it will -- you know, it's probably going beyond their doorstep in five years or ten years. Interesting.

Jamira, I wanted to bring you in here on this idea of those different sets of schools and competencies that Amanda mentioned, some that Cory mentioned, this idea of literacy as a foundation, you know, pretty important foundation school. You know, tell us about your work at the City of Philadelphia but if -- why don't you also tell us a little bit about your own educational experience or your own history or, you know, how you grew up and what were the skills that you found important in your own education career?

MS. BURLEY: Well, I would actually first say -- go back to a point that you made earlier and say that it's not just our grandfather's education, it's also not our parents' education. And that just goes to show you how education, technology, and the job market has changed over the course of the last 10 years. But what I will say is that when you think about education you think about literacy, something that comes to mind in regards to how young people are able to move throughout one industry, become successful leaders in their community is transferrable skills. And skills that they can take regardless of whatever job market there is that they can enter it and be active and contributing citizens.

I grew up in an environment where for many people there were two ways to make it out, prison or death. And as the first of 16 children -- I have 10 older brothers and 5 younger brothers and sisters and I grew up in an environment where education wasn't the top priority. For us it was trying to function in a society where we didn't feel as contributing citizens. And so it wasn't until I was in fourth grade where my mom realized that I was reading on a first grade reading level and she approached my teacher talking about how I should be kept back another grade in order to be put up to speed, that I realized the importance of education and thinking about how it would enable me to change not only the trajectory of my life but also the trajectory of my community. And so for me when we think about literacy we think about transferrable skills, or our skills in regards to competency and education, I think about a young person who is really able to transform not just the life of their own family but the life of their entire community. And so one thing that we do at the YAG -- the YAG is the Youth Advocacy Group comprised of 19 young people from around the world who focus on education from a different lens, or a different perspective. The two areas that I focus on, it's not only conflict zones but also the role of businesses to education. And my colleague, Rolando who's from the Philippines and he'll tell you it's the country with 7000 and something cities and so he focuses on education from the perspective of disabilities, youth with disabilities. And so something to keep in mind in regards to literacy is that regardless of whatever neighborhood, community, village a child comes from they're coming into the classroom with so much baggage already. Whether it's from their own personal experiences or whether it's from generations of family members who weren't able to read and weren't able to really contribute to society and so thinking about how that plays a role into skills. But I would say now as the Executive Director of the Youth Commission literacy and that foundation played a huge role in my life. I became the first of 16 children to graduate

high school and go to college which is unheard of in many areas or in many communities. And so I think about how I'm now able to use those skills to train young people to be active citizens, but also to be advocates for their own education. And so now we focus on a range of issues, everything from jobs and economic development to violence prevention. Because when you think about the life of a young person there's so many issues that intersect with each other and you can't solve one without looking at the entire picture.

MS. WINTHROP: And in addition you mention literacy and transferrable skills, what -- at least from a personal standpoint and maybe from some of your global citizenship work that I know you work on with the YAG, you know what are some of those transferrable skills? Both that you found were like really important for you and your own ability to sort of, you know, be the one kid in the family who made it through the education system, or from the global citizenship work.

MS. BURLEY: I'm a firm believer that everyone is the expert on their own experience, including young people. And so when you think about transferrable skills, our interaction with young people around the world is how can we train you to be your own story teller, to be your own heroine, and to really lead the charge to change your environment. And so I think about advocacy and leadership training, I think about the ability to understand how laws play a role in your individual life. And so in the context we promote the idea of global citizenship because we recognize that the world is becoming increasingly small and you're no longer competing for a job with the person across the street versus the person across the country. So how can you enable people to have understanding and empathy for ht person across the border and recognizing that their issue and their struggle is just as important as yours.

MS. WINTHROP: Okay. Thanks. I want to switch gears and come back

to Amanda on a topic. I mean we talked about sort of the fog and what can we do to prepare for the fog which includes literacy but includes other things too. So, you know, then our minds can go to well, what are we going to do about it. You know, can we prepare young people for this broader range of competencies that they're going to need? What works really well to do it, what doesn't work well? You know, what are some effective models or not effective models that we should learn from?

MS. RIPLEY: Okay. So I really do need to talk about grandfather in answering this. And let's just talk about the U.S. for just a second and then we'll broaden it out. So within the U.S. if you were to look at your average American grandfather, just picture him in your head, and if you were to do a relatively sophisticated analysis of his literacy which the OECD has done in something the PIAAC test, a terrible acronym, but P-I-A-A-C that came out just six months ago probably, where they go to your home, they sit down at the computer, they give you an hour test. If you don't -- if you're not comfortable using a computer they give you paper and pencil and they look at not just you ability to read and understand, right but your ability to apply what you've learned to make decisions, the kinds of higher order skills we're talking about when it comes to modern literacy. And if you do that you find out that compared to other grandfathers in the sort of global grandfather throw down American grandfathers do very well on this test, and grandmothers I should say so -- excuse me.

MS. WINTHROP: Forgiven.

MS. RIPLEY: Yes, it's a terrible mistake (laughter). Anyway, grandpeople do very well (laughter) on this test in the U.S. ranking, if we were going to get down to ranks which are always controversial, but let's just do it for -- just between us. Okay, so if you were going to rank them you would say they're about fourth in the world compared --

MS. WINTHROP: American grandfathers?

MS. RIPLEY: Yeah, American grandparents.

MS. WINTHROP: Grandparents.

MS. RIPLEY: There we go, that's it, American grandparents.

MS. WINTHROP: Grandpeople. Did you call them grandpeople?

MS. RIPLEY: I called them grandpeople; I'm like that isn't right. (Laughter) American grandparents compared to grandparents around the world, fourth in the world, very respectable, solid, solid. Now cut to American 20-something year olds. And if you do them the very same test which the OECD did, a very large subject, then you find -- well, no there was good news at first. The good news is American 20-somethings do better than American grandparents. So we are getting smarter and that is encouraging. But if you do the ranking compared to young people around the world they're at 17th. So they were fourth and they're at -- compared to young people around the world, right. So what does this all mean? Why am I telling you this? The reason I'm telling you this is because it actually is incredibly hopeful. It shows you that there has been in not a huge amount of time dramatic progress in some countries around the world. So they have managed -- you now have a handful of countries, let's say a dozen maybe more, but a dozen countries that now managed to educate virtually all their kids to higher levels of critical thinking in math, reading, and science. That is a remarkable progression. And if you look back, you know, Finland which is one of the countries that is always cited as this kind of, you know, Utopia for education and is in many ways, that country had a 10 percent high school graduation rate in the 1950s. There's a kind of romanticization that happens I think when talk about other country's education successes. And it's important to look at the trajectory over time to see how they got that way not just how great they are today, but how they got that way. Same story in Korea. If you look more

recently a country like Poland is an incredible example of a country that in 2000 -- not that long ago -- Polish 15 year old scored below average for the develop world on a test of critical thinking and reading, math, and science. I'm talking here about PISA test, another terrible acronym, but P-I-S-A, but also by the OECD. Anyway they scored below average, below their American peers, just not great at all. And they did a bunch of things which we can talk about but by 2012 Polish 15 year olds were scoring above average for the developed world on the very same test in every subject way above their American peers. And it had gotten more equitable, their high school graduation rate had gone up. I mean they still have plenty of problems. If you go to Poland no one is content with their education system but to see that kind of progress to me suggests that it is certainly possible, not easy, right, but it is certainly possible.

So to finally answer your question what do you put in that backpack, how do you do this? Some of the things that the international data supports and here I am unfortunately talking mostly about the developed world thought not exclusively and we can maybe broaden this out, but what we know from the data in the developed world which is now stronger than ever, although still mysterious, but we know that investing in much, much more serious teacher selection, training, and support is something that seems to be the most efficient way and the most elegant way to elevate a system. And that sort of assumes you've already reached a baseline level of functioning, right, like teachers are showing up, kids are showing up; baseline level of functioning. So there's different interventions for different phases, right. And McKinsey has a very good report on this. It came out several years ago that I still think is great that talks about the getting from poor to fair involves different things. Getting from fair to good and good to great involves different things. So getting from good to great or even fair to good certainly involves much more serious work on teacher education and support This is not

something that the U.S. has done at scale. Certain states including Massachusetts have improved but it is something that, you know, Finland, Canada, Singapore, those countries are doing much better. So that would be one thing.

MS. WINTHROP: When you mean teacher support what do you mean?

MS. RIPLEY: So I mean we spend billions of dollars on professional development in the United States, almost none of which leads to anything good. (Laughter) So not just giving money to help teachers get better but doing things that we know now and -- this is still early days -- but we know actually do help. I mean if you really think about it, you know, I've been on my own learning curve with this, right. As you've noted I've avoided education for a long time but I've been doing this for six years or so now and in the beginning I would say things like teaching is so hard, you know, we all say teaching is so hard. And my mom is a teacher and, you know, I had a lot of respect for teachers, but I thought it was hard for reasons that are somewhat superficial. Like kids never thank you. That's not why it's hard. So I've now realized that why it's hard and once you really see great teaching happening you realize that it is an intellectual chess game. It is a master order, high order cognitive functioning that requires constant decision making, dynamic change, psychology, management, organizational behavior, a huge set of skills that is clearly much more demanding that what your average American physician does on your average day. So that kind of vision requires one-on-one coaching, right, with very effective teachers. It really requires teachers to have more time to watch each other teach. This is huge challenge in the U.S. But those are investments that other countries have found really do pay off. So it sounds -- I wish it didn't sound so amorphous, but they don't think it is --

MS. WINTHROP: No, no, that's quite concrete, yeah.

MS. RIPLEY: -- as amorphous as it sounds.

MS. WINTHROP: Yeah. Okay. Great. So teachers is one. Did you have something else? I cut you off midstream.

MS. RIPLEY: Well, I could do this all day, but let's just say --

MS. WINTHROP: Teaching. What about --

MS. RIPLEY: -- you asked about teachers --

MS. WINTHROP: -- something that doesn't work

MS. RIPLEY: Okay, great. That's so fun. So there is one -- there really aren't that many, maybe one or two reforms that the U.S. has attempted at scale and education. I mean we have obviously extremely decentralized education system, right, so you don't see a lot of coherent efforts happening across the country. But one thing we have tried at scale is small class sizes. They may not feel like that now but that is something more of our states have done than not done or tried to do. Often we've done that by hiring more classroom aids and paraprofessionals. And we do not actually anywhere in the world see good returns in that kind of investment. So it is politically popular, it's popular with parents but, you know, beyond a certain point -- I mean obviously you don't want to have massive classes, but it's secondary to other issues like principal quality, teaching quality, teacher support, parent investment. Those things matter more. Another thing that doesn't seem to work, all around the world the percentage of kids that are in private school has no effect on education outcomes. The amount of competition or school choice has no discernible effect on student outcomes around the world. There are undoubtedly exceptions to that, right, maybe in New Orleans, you know. But all around the world looking at the data you don't see any strong pattern when it comes to school choice, private schools. Even past a baseline the amount of money you're spending per people, it's more about how you're spending the money.

So maybe the last thing I'll end on that doesn't seem to work but seems to continue without cessation around the U.S. is a kind of enchantment with shiny objects in the classroom, so we have overinvested compared to the developed world in computers in the classroom for example. It doesn't feel that again, it's not the narrative that we tell ourselves about our schools but we have far more computers say in high school per student on average than Finland, Poland, or South Korea which are dramatically outperforming out. When you go visit these schools you do not see a lot of digital white boards on the walls, smart boards -- which are quite expensive -- you do not see iPads for kids. You do not see that. So does that mean you should never give technology? No. I mean it just means that the way we're investing in technology by not also training teachers in it and doing it in ways that lead to learning, that is not a good use of that choice.

MS. WINTHROP: Thank you. Let's go to you, Cory. I mean Amanda gave a list of, you know, some, you know one crucial ingredient, teacher preparation and development and some things that don't work. And I'm a firm believer in talking about things that don't work. We have in the academic world a massive publication bias. Everyone, you know, in academia talks about what works and that's how you get published in papers and nobody really wants to stand up and say this really failed, but it's incredibly important. So what about -- but what about from where you sit? What would be your sort of counter list of what works, what doesn't work?

MR. HEYMAN: What works and what doesn't work?

MS. WINTHROP: Yeah, for the developing world.

MR. HEYMAN: Absolutely. So I very much appreciate what Amanda said and believe firmly that teachers are the core and the secret to either the success or the lack of success. And as Jamira said that -- well, Amanda said that, you know,

teaching in the classroom is a giant chess game. It's about classroom management, it's about keeping focus, it's about sharing information, it's about developing skills. Jamira said that it's also about the fact that kids come to classes with very different experiences and very different challenges that face them. I think that what is so difficult in the context in which we work and the goals, the very aspirational and very laudable goals of 100 million children being able to read, which seems like it's very focused and contained, is that that's a huge system level issue that it requires if you assume 20 or 30 children per classroom and then a lot of the classrooms where we work, once you get a whole lot bigger than that then you do get real challenges of children learning because it's about classroom management and space and just quality of the classroom environment. So it may be different than in some of the studies that Amanda has been seeing. But you think about 20-30 children per classroom, that means 3-5 million teachers being able to support children to read and write in ways that they haven't been able to do in the past where they themselves may have limited education, they themselves may have limited support in service teachers support, and maybe under extreme situations. And so the ability to think about how to deal with individual children's challenges in a subject that is comparable to rocket science, to teach children to read and write at scale is a huge issue. And it really is something that I think deserves more attention than we have given it because it's one thing to talk about the ability of teachers to respond to individual children's needs, but when you have 50-60+ children in a classroom or you yourself don't have the foundational skills to be able to support children in their reading skills development then there's no systems for success. And that's I think the critical challenge that we face in our work is how to think about a program that can be successful on a small scale in limited circumstances, maybe in some certain countries, but then to be able to make that available in the most challenging circumstances.

So I think that teachers are key to that. I think the fact that in many of the countries where we work that children come from a household where text is not ubiquitous, that it is not as common, where parents don't have the experience themselves of reading or writing and therefore we're asking kids to come to school and so something that we say is important but that they themselves in their own experiences don't really have the same kind of background. And I think that we assume that -- and we take for granted the fact that we read to our kids every night before they go to sleep that, you know, text is everywhere around us. Room to Read, our organization, is coming out with a new campaign called, "Do Not Read This". And the challenge is that it's impossible not read for, you know, even a few minutes because reading is everywhere. It's behind us, it's in front of us, it's what we do. So if you are a child in a place where reading is not part of the culture, is not part of the past, and you are asking them to take this as a value themselves and asking that to be brought back into the home, much less being successful in the classroom. I think that that's an additional burden and an additional challenge. One of the -- you know Amanda in her amazing book talks about countries in which teaching is prioritized, where there is a value to being a teacher, or placing value on teaching such that teaching candidates come from the higher echelons of children with success -- or, excuse me of university students with success and where there is competition and where children who come to school desperately want to be successful because they see and they value that as the path to success. So it's not just the teaching it's also the fact that unless you are already living in a place where there is a culture of reading it becomes that much more challenging for that foundational skill. And I know that we're not talking specifically today on International Literacy Day about reading itself, but again if we think about the foundational skills --

MS. WINTHROP: It's included; we can talk about reading.

MR. HYMAN: I can? It's okay too? (Laughter) But without the opportunity to have those foundational skills I think it becomes very difficult for children to stay focused in classroom activities because after the second and third grade even in countries that don't do a good job of teaching children to read there is still an expectation that children understand the textbooks and that they can process information. You know, Jamira identifying the fact in fourth grade that she couldn't read at a first grade level. I mean that slows you down. You can't be successful unless you can speed up. My daughter in second grade appreciating that she had dyslexia and seeing that her skills were not comparable to her classmates, there was a stigma and a feeling associated with that that compelled her to be more proactive in her own reading and education, for her parents to be able to support her in that way. And so if you don't have that it becomes much more difficult to do anything else. So I think that the list of then what doesn't work is having the expectation that teachers are going to be able to manage children's individual experiences without appreciating that it is a system level issue and that we need to provide teachers the foundational skills to be able to feel comfortable in promoting reading at a very basic level or whatever those key foundational skills are before we ask them to deal with individual issues which is a higher order challenge that is also important but is something that needs to be worked on after we focus on the basics.

MS. WINTHROP: Okay. And you said something, Cory, about sort of the struggle to find ways to do this that reach a broad number of people. The struggle to do this at scale. And you talked a lot, Amanda, about like what do we know that works at scale and, you know, there's lot of -- perhaps what you meant but didn't say explicitly is lots of great models that serve a small number of kids at various ends of the spectrum I would imagine in the U.S.

So this issue of scale, I just want to pause and talk about it for a moment

and have each of you think about scale perhaps but not come to you directly because we'll open it up and then -- but we'll come back to this issue of scale because I'm a little bit obsessed about scaling and we're obsessed about it at the Center these days in part because I really think it is one of the sort of the major issue for our time because we do have good models of cultivating both literacy and other sets of skills that can prepare us for the fog, it's just not done systematically across many countries. And, you know, scaling is something that we have started initiative at Brookings called Millions Learning. My colleague Jenny Perlman Robinson leads it with our colleague Jenny Alexander, which is really looking at -- you know, the Millions Learning project is looking at, you know, what are examples of both good examples and bad examples, things that didn't work, of scaling education, programs intervention policies that improve learning. And by definition that means probably reaching the marginalized areas. And it's been hard, I've got to tell you, hard work finding examples and figuring out why. And, you know, scaling is also something that a number of our colleagues, Homi Kharas and Laurence Chandy and others here at Brookings have worked on for the past four years. And, you know, everybody has a different definition of scaling. Some people talk about scaling as really, you know, increasing outcomes for a broader number of people, some people talk about the process of scaling, you know. And there's all different definitions. It's replication or adaptation or expansion. There's even explosion is one process of scaling; it's kind of my favorite. And of course scaling you have to have a time dimension, certainly for education. It has to -- you know, it can't just be sort of, woo, 12 months, did it, did it across the whole country, done. But certainly for education it has to sort of be systemic and last.

Just before I came down for the session I looked at some of the scaling research and there are some sort of disconcerting data that comes from my colleague,

Homi, his work. What he talks about, international development, large education being included and he says, you know, by and large international development investments have been more of a whimper than a wave. And most of the projects they are short term small disconnected and don't have any sort of discernible scalability or translate into that. There's almost 20,000 development projects -- this is for one year, 2010 -- about 130,000 different activities, $13 billion. Half of them are about a year long and $50,000. And the mean is only $1 million in two years. So these are lots and lots of little, small, disparate activities. It certainly is an issue for the education community. We did a survey recently of about 36 donors and a range of big organizations and they named scaling as sort of their number one concern.

So with that in mind, you know, I'm particularly obsessed about and we're obsessed about it because we're so concerned about equity because how do you make sure that these sets of important skills, literacy, you know, learning agility, all the ones that we've talked about, the transferrable skill that, you know, kids are going to need to face the fog, whether it's the fog today in the U.S. or the imminent fog in the future around the world, how are we going to make sure that every kid gets those skills?

So think about that if you have thoughts. But we'll turn to the audience for now and get you guys involved in the conversation, but we'll certainly come back to that either at the end -- and Khaled my colleague has a mic. So questions, comments? What do you guys think of scale or other questions? We'll take a few at a time. One down here. And please do introduce yourself. And I'm a bit draconian, if you can be sort and to the point that would be great so we can get more in.

MS. ROSS: I'll be brief. My name is Elizabeth Ross and I am a schoolteacher. And you had mentioned about South Korea, how their scores are better than American kids and I went to South Korea and taught English as a second language.

And my own personal thought as to why their scores are higher than ours is because they have no drugs and they have no guns in their culture. It's not a question, it's a statement so.

MS. WINTHROP: I think we should go directly to Jamira on that.

(Laughter)

MS. BURLEY: So I was ironically enough going to bring up two of the issues that I think are really crucial in regards to how do we move forward. One is funding. At a time where we are faced with the largest population of youth the world has ever seen we have decreased in our funding, particularly in the U.S., especially around younger kids which is interesting because if the child is not reading at grade level by third or fourth grade prisons are being built for them 10 years, 15 years down the line. But when you think about violence as a crucial issue Philadelphia just opened schools today at an $81 million deficit. There are school police that will not be hired and there are safety issues that will not be addressed. But when I think about that I think about the fact that the ability to get access to guns and weapons into schools and South Korea does not have access to those. And people don't understand the context of what that is and an individual having access to a gun and then being able to put harm on a child we face here. Violence is a huge issue particularly around millennials. But when you think across the board one of the biggest reasons why young people don't have access to school or don't go to school is safety issues, because they are afraid of that transition from home to school or actually in the classroom. So I would say that's a huge issue in regard to access to guns or safety issues.

MS. WINTHROP: Great. Thanks. I know there's other questions so raise your hands high. And while you're doing that, Jamira, I think if you can adjust your mic just a slight bit over or down I think that might be what -- all right, other comments or

questions? You guys have no opinions whatsoever?

MS. COWERT: Hi, my name is Annette Cowert; I was an intern here and I've just graduated with a Master's in sustainable development and I have a question for Cory Heyman. The literacy campaign that you're doing with the children's literature, can you talk a little bit about how the cannon of work that you've commission with the children of the developing countries, how that literature is being disseminated to others?

MR. HEYMAN: So I do think that -- or Rebecca, do you want to take more questions or do you want?

MS. WINTHROP: No, go ahead.

MR. HEYMAN: Okay. So I think that in the spirit of scalability one of the big challenges that we find in the schools and classrooms in which we work is limited access to engaging in fun to read children's literature. And that if children aren't exposed to the kids of amazing Dr. Seuss kinds of books that we've had the luxury of having in our lives then they don't develop the habit of reading in the same way that then promotes their desire to be lifelong independent readers. And so part of what we do in our organization is we do gap analyses to determine within local languages and within the countries in which we work the extent to which children's literature is available, that is appropriate for children at different reading levels and to the extent that it is available through our amazing investors we then procure those books and distribute them through, you know, any means to be able to get them to schools in which we work. Where those resources are not available we work with local authors and illustrators to help them to shift their focus away from maybe some of the older children's books or adult literature to be able to design books that are engaging and fun to read for children, particularly appropriate for children at different stages of their reading skills development. So we have published more than 1,000 titles in 28 different languages, and then we also ensure

that those resources are distributed to schools so that the libraries that we also helped to create have the resources for children to have that kind of exposure and to know that reading is not just for the classroom and not just for textbooks but also is available for supplementing the curriculum and for fun. And that's an important part of that process of developing a culture of reading where it doesn't exist.

MS. WINTHROP: Okay. Other questions? Let's see, one here, Seamus and Tamara.

MR. HEGARTY: I guess I better say something for the grandpeople. I'm Seamus Hegarty, University of Warwick, UK. Question to Cory, but it comes out of something that Amanda said, one of the things to add to the list of things that doesn't work -- which I can't speak for this country -- education system in Europe does, we still expect young people to imbibe curriculum that was essentially devised in the 19th century. That doesn't work and it's not going to help people through the fog. Now, Cory, are there ways which people in low income countries can leap that gap by moving to more appropriate curricula which will be preparing youngsters more effectively for the jobs that they are likely to be doing, which we still don't know of course?

MS. WINTHROP: Great. And there was one more behind -- Tamara.

QUESTIONER: Yeah, a grand person but thankfully not a grandmother yet. (Laughter) Thank you very much to the panelists for the great comments. I agree with a lot of the points raised about the central importance of teachers and the comments around what doesn't work. I guess I wanted to put an issue on the table that was touched upon but not fully explored. When I think about the ingredients for good learning outcomes I think about first for children to come to school ready to learn and second for teachers. So there's a lot that happens in the home and I think it's important to think about learning taking placing not just within schools and school systems, but really touch

upon the importance of earlier learning, early childhood development which starts at conception. So comments on that.

MS. WINTHROP: We'll go to you guys and then I see several more hands up. We'll catch you in the third round. Amanda, why don't you start? We had a question about curriculum as well as early childhood, and then we'll go to Cory.

MS. RIPLEY: Well, I'm glad you brought that up. I mean one thing that does -- I mean this is again a macro answer, but around the world one thing that does seem to correlate with progress in education outcomes is setting more rigorous, more coherent clear standards for what kids should know at every grade level. So that's something you see in Finland, in Korea, pretty much every country. Canada's at the province level. So that is something that tends to lead to clarity and coherence and sometimes rigor, but only in combination, right, with these other things we've been talking about. The curriculum -- now there's sort of some jargon here, so the standards are the targets for what kids should be able to do at the end of the year, right. The curriculum is how you get there. So in most of these countries teachers, especially Finland teachers still have a lot of freedom about how they get there, but they're very clear goals in every single subject from history to home ec to phys ed to math, for what kids should know. And over the years, you know, they change these goals and it's always controversial. Right now we have 40-some states that are trying to adopt a common core set of standards that are more rigorous and more coherent and more clear in most cases than what those states had before. It's important I think in the U.S. to understand, and this is true in many countries I think it's fair to say, the absolute madness that teachers were facing before. So the common core, very controversial in many states here; there's good debates to be had about this, but it's important -- I don't know if everyone knows what came before. So I spent some time in Kentucky for a story about the common core

because Kentucky was surprisingly perhaps the first state to adopt the common core and has had more time with it now, years with it. And what happened was before they had this kind of crazy quilt mish mash of standards that they had to meet. So the teacher had standards from the state, standards from the district, standards from the school, and then a textbook that tried to encompass all these crazy standards from all the states, right. And so what is the teacher left to do? The teacher is left to pick and choose because you cannot possibly cover all of that, all that madness. Pick and choose what you want to cover and what you can cover and then the next year the next grade teacher gets your class and also three other classes who also have a mish mash of what they know and don't know. So you have to kind of go back and re-teach fractions. And they found that the U.S. kids were learning fractions like eight years in a row compared to kids in some of the top performing countries. So, you know, we have a kind of obsession with local control in this country. I don't know if you've heard about it but I think we all we know this one of our obsessions and the verdict is out on whether we will decide that is more important than education outcomes and coherence. So I obviously have a point of view on this (laughter) which is that more coherence and rigor is better and that standards are actually in most countries are kind of a relatively non controversial way to help that process along, but not in every country.

MS. WINTHROP: Explains why I studied the trail of tears in the Cherokee Nation like from grade one through grade five. Now I understand.

MS. RIPLEY: Yes, exactly. Yes. There's a lot of that.

MS. WINTHROP: What about early childhood? Tamara's point about trying to think about learning that starts from the beginning but not just in schools?

MS. RIPLEY: So --

MS. WINTHROP: I mean --

MS. RIPLEY: Are you asking me?

MS. WINTHROP: Yeah. Then I will move --

MS. RIPLEY: Okay. So all round the world parental involvement from a very early age obviously does matter, but it's interesting to break that data open a little and we see some surprising things. The same with pre-K and early childhood education. The kind matters as much as the quantity if not more. So we know that high quality pre-K -- and we could debate what that means -- actually does yield lasting returns all over the world. The U.S. has not seen lasting returns on pre-K on average yet, but there's a suspicion that -- I'm looking here at 15 year olds going backwards -- a suspicion that the quality has gotten a little better so we will see that. But the quality really matters and it's something that again we tend to be very into quantity. And the harder conversations are well, how are those pre-K teachers trained in New York City, what standards are they working with, how are they supported when they're struggling, what kind of leadership do they have? Those are the kinds of things that matter just as much as whether pre-K exists, right. And the same is true of parental involvement which is kind of fascinating to me. So there was a study of countries -- a large number -- I think it was 30 countries -- I have to check that -- but they found that the kind of parental involvement had a huge impact. It wasn't the quantity. So all around the world the more time the parents spent reading with their kids when they were little and then as they got older talking to their kids. And this is something I've learned as a parent, I didn't know. I mean, you know, reading to your kid ideally involves asking them questions, asking them what happens next, like making them think of themselves as someone with agency who's reading this critically. And then as they get older talking to them about their days, talking to them about the news, talking about movies, books, whatever. That conversation is where the magic happens and all around the world parents who do that more tend to have kids who

are better critical thinkers in reading by age 15 even after controlling for other things like socioeconomic status. Interestingly -- and then I'll shut up -- the converse of this is parents -- the more time parents spend participating and volunteering in extracurricular activities in school like the PTA and bake sales and field strips and coaching, all the things that I actually think are classic American PTA behaviors, all those things, the more time parents spend doing those kinds of things the worse their kids did on a test of critical thinking and reading by age 15 even after controlling for other things like socioeconomic status. So what you ask parents to do is very important and that's where you get into this leadership question. You know a strong school leader is able to channel American parents toward things that actually yield returns. Most school leaders do not do that in the United States and probably around the world I think it's fair to say.

MS. WINTHROP: Thanks. Cory, you had a really specific question from Seamus.

MR. HEYMAN: So just to paraphrase, Seamus, if I -- you know, the theme of today's discussion is this is setting up children and people for the skills for the 21st century and does there need to be a commensurate change in the way our education systems work to be able to drive that as compared to some of the patterns that we have been perpetuating since the 19th century and I think the answer is yes and that there are a number of ways that we can change curriculum to be more active, to be more applied. But I still go back to International Literacy Day and reading literacy and say that all of that is only possible if children have the foundational skills. And so that there still needs to be a focus time when children have the opportunity to develop their reading and writing literacy skills. As Amada said that if you have a very clear set of expectations, if you have a very clear set of outcomes then there can be more focus, you can do that very efficiently. And that what we're seeing in our reading programs is that children can

be taught to read in a fairly short period of time. But if they don't have that and that may be perceived as something that's 19th century. And in fact a lot of the processes that we are focusing on now and some of the drills that help children to become successful readers are things that were also successful 50 years ago and that we have gone away from thinking that children can learn from context and some of the things that we have found not to be as successful, particularly in a lot of languages in which we work where there's a direct correlation between the sound and the letter, where reading can be taught in a very different way. So if we can do a really good job of helping children to read early in their career the children who may drop out of school anyway for other reasons will at least have those foundational skills and then all children will be successful and be able to have experiences that are more hands on and practical and constructivist and all the things that we have learned to be important at later phases of education. But I think that it starts with having the foundational skills, again both to have the resources to be able to work through curricula because all curricula after grade two is based on textbooks and the expectation that children know how to read as well as the ability to think analytically and with reason and logic and be able to solve problems in the ways that we see is successful in so many other educational systems.

The other pillar of our work at Room to Read in addition to early grade literacy for grades one and two and having libraries and story books for children in primary school is girls in secondary school where our focus is helping them complete secondary school with the skills to be able to negotiate those transitions from secondary school to the other phases of their lives. And a lot of what we do is to promote life skill education. So girls who have the agency to appreciate themselves as decision makers and as actors and to have opinions and to be able to negotiate their relationships with their parents and their older brothers and their peers and their teachers to stay in school,

to stay safe, to be able to work through activities in which they can role play and be able to think through higher order problems and skills and activities that really do promote that successful transition. What we find is the girls who have had strong skills in reading and writing earlier in their education, that they do a much better job, that they're able to be much more successful, and that the girls who don't have those skills also then have a much more difficult time being successful in the life skills education. So I think that it's a question of emphasis and priority but I would still say that it's really key to make sure that those foundational skills are first.

MS. WINTHROP: Great.

MR. HEYMAN: Yes. I'll wait.

MS. WINTHROP: Well, we have a second round of questions. Hold your hand really high. We have Meighan down here and we have several folks back here.

MS. STONE: Thanks so much for this spirited discussion. It's been really wonderful. My name is Meighan Stone, I'm with the Malala Fund. And I wanted to ask, we've had a lot of discussion about high performing countries like what's happening the U.S. versus Finland, et cetera, I'm wondering to put the focus more on low performing, low income countries for some of the discussion and even at a community level or developing country level, what have you seen more in terms of literacy that's locally led and putting the focus on that kind of constituency of nations versus some of the other discussion? Anything you've seen that's working from local leadership, local NGOs, or governments that you think have had particularly notable returns that might be replicable in terms of literacy? Thanks so much.

MS. WINTHROP: All right. So about local leadership for leadership. There was a bunch of questions over here. Hold your hands. Yeah, we'll go this way.

MS. NOHU: Okay. Thank you for very wonderful presentation. I thoroughly enjoyed it. My name is Sophia Nohu I'm interning at the IDP Brookings LSE Project on Internal Displacement. I'm a lecturer in Nigeria. I'm part of the (inaudible) project. So one of the things that I'm really interested in is the discussion Cory has had regarding the lower income countries and specifically I'm thinking of the policy perspectives because one of the reasons for which you're here is this discussing possible policy initiatives that will take education into the next -- and then they will be taken into consideration with respect to policy planning in the 21st century. But within the context of those lower income countries I see a very huge disparity. For example I did research very recently before I came here on goal child issues and there are many good policies that provide free goal child education but notwithstanding you don't see those policies taking shape or being utilized by the communities or the societies. So there are more deeply rooted in build problems that actually the policies do not address like say a discussion platform such as this emanating from the states themselves that address those issues. So the focus and perspective being -- I mean the solutions that you preferred, the quality of teachers, the quality of the instructors is one of the problems that's basically not addressed within those contexts. So focus is given on so many other issues and so many other things. So I'd like you to address the policy perspective please. Thank you.

MS. WINTHROP: Thank you. And we had several -- yeah, there's one here and I think there was someone over here.

MS. GILLESPIE: Hi. I'm Marilyn Gillespie and I'm a literacy specialist who worked in Liberia about a year ago, not recently unfortunately, or fortunately for me. And actually my question and comments are a follow up to the one person who just spoke. I wanted to say to Cory that I'm a real fan because I think engaging fiction is

really key to facilitating increasing reading fluency and comprehension and vocabulary development and all those things that kids need to learn how to read. And I would hate to see you turn your stories into textbooks, however when I was in Liberia I had to write fiction for the learners that I was working with because there just wasn't any available and what I found working with teachers is that teachers had a really difficult time developing those series of critical thinking question that they would ask to go with the stories. And parents to too, you know. And, you know, the sort of sequential series of critical thinking questions that allow learners to develop their thinking skills. And that once we did that and we helped teachers and provided those to teachers based on the stories the reading comprehension seemed to improve and vocabulary and just the comfort level of teachers. And they were learning about how to ask critical questions. And I wondered if you've explored that in your books or done any research on that? So, thanks.

MS. WINTHROP: Great. Thank you. Let's do one last question right here, then we'll go to the panelists for their final thoughts.

QUESTIONER: My name is (inaudible). I'm a writer/editor by profession. I grew up in the States but I've had the opportunity of living in Pakistan as an adult. And while I was there I taught English literature if a very, you know, elite kind of a private school My experience there was -- I guess what I'm trying to raise here is that when we talk about developing countries and literacy we think a lot of the, you know, the pockets where there is no literacy, however in urban areas which is where I lived for more than a decade I still found that although literacy is there, although people are reading, they know how to read, there is text everywhere, still there is no reading culture. And as a teacher I found very quickly, you know, the kids were not interested at all and that was directly connected with their cognitive skills. and so I guess one of the solutions that I found, because I was there for a good 10-12 years, the solution that I found was that

although kids learn how to read they don't develop a love or reading. Possibly because find, the culture is not -- you know, at home it's not there but also within the school reading aloud activities are missing which is why, you know -- because when we do reading aloud we can read above we can read above their developmental level which is how they increase their cognitive skills as well. So that was one of the solutions that I found which I worked on with my kids who were also growing up there and I worked on with a lot of other kids within the institution that I was involved in, which again, you know, again kids are doing really well there. I mean they're graduating and going into Columbia University for instance from Pakistan. And yet there is no culture of reading so I just wanted to raise that and -- because I feel a lot of our, you know, talk on literacy focuses on how to learn how to read, even providing the books and yet we forget that within those same countries in the urban areas the books are there, kids know how to read, and still the reading is not there because they're not to love how to read.

MS. WINTHROP: Great. So, thank you. So it -- not everybody answer the same question and I still have this question around scaling, like how do we do this in a way that can really reach a lot of kids, particularly in marginalized areas. And then we'll -- each of you for your -- go to each of you for your final thoughts. So just to recap there's a real question about what are initiatives that are locally driven, so from -- I'm interpreting here, Meighan, knowing you -- from developing country, you know, educators or leaders themselves that you've seen to be successful. A question from the colleague from Nigeria around policy initiatives, and the fact that you could have a policy on paper but you fall down on execution. An interesting question about how to make sure -- which is somewhat questions tied up around reading, which is about sort of how to you interweave critical thinking, how do you do more than just teach someone to read, but also develop a reading culture. And then, you know, any other thoughts you like in three

minutes or less.

So, Jamira, why don't we start with you? You've been --

MS. BURLEY: I knew you were going to start with you.

MS. WINTHROP: Do you not want to -- should we start with Cory?

MS. BURLEY: No, it's fine because actually it's on top of my head. So what I would first say is in regards to the young lady's question around policy, there was a consultation that happened a few months ago called The World We Want. I'm not sure if many of you are aware of it. And two of the things that came out from young people participating in that survey that they thought were important was that one, education was a priority but that two, governance or accountability from government is extremely important. And I think when we talk about the context of policy you have a lot of government officials who are making promises to change the way that they do education, provide more funding to education, but yet that policy is not reflected in the initiatives taking place on the ground. And so I think when we think about accountability it has to -- the question needs to come on how do you train and create platforms for young people to hold their government accountable for promises they make, but also how do you make sure that education is a part of the post-2105 agenda moving forward, especially if we're going to make this a national initiative. But I would also say something else, we talked about how young people who are learning in t eh classroom go home and their parents don't have those same skills. We also need to think about in some developing countries where government officials themselves may not also have those skills. And so how do you make the case that education is a priority when they themselves may have not experienced that in their own life?

And the last thing I would say about scalability, one thing that really scares me about scalability is that we one need to create -- define what that means

because as you said it means different things to different people. But when I think about scalability or what has been -- I've seen it previously is that it's been one cookie cutter model that have been implemented in neighborhoods and communities across the country and across the world that doesn't work depending on the young people. And so how do we create a menu of options that organizations, young people -- not young people but governments and school districts can choose from that can help work towards the same goal? And if there are organizations or government agencies that are doing individual work around literacy and education how do all of these organizations work toward the same goal or the same outcomes moving forward? I think in regards to scalability that is kind of my overall concern.

MS. WINTHROP: Great. Thanks, Jamira. Cory?

MR. HEYMAN: I'll try to answer -- do my best to answer all the questions at the same time in like three minutes.

MS. WINTHROP: All of them.

MR. HEYMAN: So the bar has been raised even higher. Thank you, Rebecca. I think that we have learned a lot in recent years about good educational policy and I think that we've learned a lot about how to help children with foundation skills. And I think that, you know, it comes from local initiatives and the science of reading and the strategies that we all have identified through our ongoing work to be effective. And the challenge is not in the policy area or in the very local area where we have pockets of success, but to make sure that there's a bridge between the two. We need to make sure that the policy is translated into effective practice at the classroom level and not make it cookie cutter but make it responsive in a way that is manageable in systems that are under resources. And that's the scalability challenge, that's the big issue. And so I think that because it's not just going from the policy makers directly to the schools but there

are central ministries of education and provincial ministries of education offices or in district offices of education. Then you get to the school principal an then you get to the teachers. So there's a lot of points at which really good policy or really good practices really get lost. And even if something is very local and very strong it gets lost in translation. How does it get up to the people who can make decisions about how to organize education effectively and how does it get back down so it gets to the classroom? So at Room to Read this is a challenge for us well and we do our very best to make sure that we really define clearly job expectations and we can really track the progress so that we can scale up and down and have that replicability of effective practices. The way we do it are three ways. One is to identify the best content out there and that content comes from local experience. Secondly is trying to organize that information to be as engaging as possible from the people who are going to be the direct implementers, who are the teachers. Make sure that if teachers have limitations in their own literacy skills or that they have challenges in being able to implement that there are very clear and simple directions, but that have a lot of very specific information that they can build on and then extrapolate if they feel that they are successful in being able to implement the core. And the third is think about the delivery systems, to be able to have that be as effective as possible, whether it's through support through in service teacher education institutions, through an inspector of process, through technologies that can be applies so that teachers who are not successful in their practices can see a short YouTube video or to be able to see effective demonstrations to that there has to be a level of consistency in the process so that we really cannot have a cookie cutter approach but be able to provide what we know to be best practices from scientific research and local experience at scale.

MS. WINTHROP: Great. Thanks, Cory. Last word and possibly a few

last questions lingering in there.

MS. RIPLEY: There's a lot -- I mean I guess one thing that comes to mind was that the gap between the policy and actual behavior on the ground is vast and I'm glad that we are talking about that. In my experience one very effective way to close that gap a little is to rely on student voice as a check and balance for policy and you can do this in different ways. Anecdotally when I report on something in any country I find that I really do not know what's going on until I talk to the students in that classroom. And I will always be surprised at the insight that they bring. Students are experts in education who are almost never consulted. And now there are easier, better ways to consult them at scale with intelligent surveys, with metrics that get at things beyond, you know, basic proficiency. There's a company -- I think it's called Panorama which is doing some very cool student surveys out of Yale, two college students who came up with this idea. And many districts, not just in the U.S. but all over the world are starting to use student surveys more to help inform teachers and help them get better. It always though ends up -- you know, depends on the execution. But that is one way I think to find out what's really going on and hold people to their promises is to ask kids what's really going on. Are people delivering? And that is actually a pretty straightforward way.

So another thing about scalability -- I mean I -- right now in the U.S. we have a bunch of schools that are doing extraordinary work. We even have some teacher training programs that are doing extraordinary work, but the scalability seems to be very dependent on the leaders. So it's a very human capital dependent which is true of all scalability by the way in every sector, right. So that's a challenge. Is how do you get beyond depending on great individuals to move to the next level. I will say in the developing world -- which I am obviously very focused on the developed world because I was looking at the real superpower education countries -- but there is a lot of evidence

that some countries including Mexico, Chile have dramatically improved their outcomes over the last -- still have a long way to go but dramatically improved their outcomes over the last 13 years and Mexico has also improved its equity so there is less variance between students. Now still a very long way to go, right, but we do have enough examples I think to suggest over time -- and this gets to your point, it takes time -- it is possible the one thread that tends to unite countries that make that transition is some consistency of a strategy. Which is so hard politically, right, to stick with a plan but at the same time not keep doing it if it's not working, right. So but some consistency at least of top leadership is very important.

MS. WINTHROP: Great. Thank you. Well, thanks to all of you for taking the time to join us today and a big round of applause for the panelists. Thank you very much.

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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.

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Expires: November 30, 2016