“National Perspectives on Scaling Evidence Use”
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Panelists: Linda Darling-Hammond and Vivian Tseng
Moderator: Victoria Schaefer

Kerry Friedman:

I want to start by welcoming everyone to the second panel in our series on Envisioning an Evidence-Based Education Ecosystem. Today's panel brings us perspectives from national leaders in the research community who have dedicated their careers to generating evidence of what works in education, and to collaborating with educators, students, and families on the use of research in practice. I'm Kerry Friedman, and I am the director of the LEARN Network, which is funded by the Institute of Education Sciences to support the scaling of evidence-based practices and programs. We facilitate capacity building for education researchers and developers, and also engagement activities with educators to support bridging research to practice. I am so excited to introduce our series moderator today, Dr. Victoria Schaefer. Victoria is a director and senior manager on SRI's teacher quality and systems reform team. Her education career demonstrates a real commitment to bridging research and practice.

Victoria's work has supported educators to improve opportunities for all students. Presently, she leads a portfolio of work that builds school-community partnerships, bridges, schools, law enforcement, first responders, and mental health providers together to support students. Victoria also previously served as the director of the Regional Educational Laboratory for Appalachia, where bridging research and practice was top priority. So welcome, Victoria, I will now pass it over to you.

Victoria Schaefer:

Thank you very much, Kerry, and hello, everyone, and welcome. We're very glad to all of you who are joining us today from near and far, and welcome to our two guest panelists. I have the privilege now to introduce them to you and kick off what I am sure will be a very engaging conversation. So let me first introduce Dr. Linda Darling-Hammond. So Linda, although she, like our next panelist, likely needs no introduction, I do want to share a bit about her background. She is the Charles E. Ducommun Professor of Education Emeritus at Stanford University and the founding president of the Learning Policy Institute, and at present, she is their Chief Knowledge Officer. She created the Learning Policy Institute to provide high-quality research for policies that enable equitable and empowering education for all children. Among her career highlights, she's passed president of AERA and recipient of numerous awards from AERA, including one for Distinguished Contributions to Research, Lifetime Achievement, Research Review, and Research-to-Policy.

From 1994 to 2001, she was the executive director of the National Commission on Teaching and America's Future whose 1996 report, What Matters Most: Teaching for America's Future was named one of the most influential reports of the decade. So Linda has consulted widely with federal, state, and local officials, as well as educators, on strategies for improving education policies and practices. She is the recipient of 14 honorary degrees in the United States and internationally. She has over 600 publications and several award-winning books, just to name a couple, The Right to Learn, Teaching as the Learning Profession. And finally, I'll acknowledge that Linda began her career as a public school teacher. She received a doctorate from Temple University and a bachelor's from Yale University.

Now, to our other panelists, Vivian Tseng, also needs no introduction, but Vivian currently is the President and Chief Executive Officer at the Foundation for Child Development. That's a private foundation that works at the nexus of research, policy, and practice to advance equity and justice for

young children and their families. Prior to joining the foundation, Vivian was a senior vice president for programs at the William T. Grant Foundation, and many of us know her from her work there pioneering initiatives to advance evidence-informed policy and practice. Vivian is widely recognized for her leadership in building an interdisciplinary field of research on research use in policy and practice, for expanding research-practice partnerships, and most recently, for supporting a broader movement to democratize evidence. Her research has been published in leading academic journals, just to name a couple, Child Development, the American Journal of Community Psychology, and American Psychologist. So Vivian currently serves on the boards of organizations like SEAL, the Data Quality Campaign, and Grantmakers in Education.

She's co-founder of the Impact Funders Forum and the Learning Community on Using Evidence for Change, which, I'm told, is affectionately called the Nerd Herd. So finally, Vivian received her doctorate from New York University and her bachelor's from the University of California Los Angeles. Welcome, to both of our panelists. I'm going to take just a moment to do some stage setting for our conversation today. So the context that I want to elevate that sets the stage really has three points. I want to acknowledge that we've spent a couple of decades at least with an emphasis on building evidence, and many more decades of research in the field of education. So we find ourselves in a time of a wealth of evidence, and I'll say a wealth of evidence for what works in education. We also find ourselves right in the heart of a movement of increasing innovation, and yet we find ourselves in a time of what many acknowledge and see as declining student achievement, and a time where we're puzzling over that declining student achievement.

So just a nod to what works in education, we've built evidence, we, as a field of researchers, have responded to the call and encouragement for the use of evidence that was in the Every Student Succeeds Act a decade ago now that called and encouraged districts to use evidence and even defined tiers of evidence. We also... I think all of us in education are aware of this time of innovation where we see increasing availability of technology and many are saying that AI is a promise for the future of improving education. And then I'll just give a nod to the most recent concerning evidence, which was the 2024 National Assessment of Educational Progress, which I think both of you have spoken about, and perhaps even both written about, which earlier this year we saw the results of those 2024 tests where we saw student achievement in reading and math at fourth and eighth grade where really what we saw was achievement at pre-pandemic levels that just gave pause and a call for concern more broadly.

So just highlighting those three points, I'll just now say that we want this conversation to focus on the moment that we find ourselves in and simultaneously call attention to what many of us are hoping for and what the LEARN Network calls for, which is an evidence-based education ecosystem where all students thrive and live to their highest potential and we see ongoing evidence-building and use regularly. So what I'd like to do first is ask our two panelists, our esteemed panelists who have led us for decades in the United States in education policy and practice. Paint a picture for us, take us to the place that we want to be where we see an evidence-based education ecosystem. That's my call and request to you. And Linda, I'd like to start with you. I want to hear your vision of that future, your picture, paint it for us first. Linda, over to you.

Linda Darling-Hammond:

Okay. I'm going to paint a picture that is really grounded in the emerging science of learning and development, this is the basket of research that you referenced, but people are beginning to synthesize it, bringing together what we know from neuroscience, what we know from developmental science, from learning sciences, psychology, and so on, about what is an environment in which our young people learn most effectively. We know that that requires us to pay attention to the fact that learning is a

function of experiences and relationships, that students are not baked and done, so to speak, when they emerge from the womb, and with genetic predetermination of what they can do. We know that genes follow contexts and experiences. Only about 10% of our genes are ever expressed, it depends on what's in the environment, that the brain is malleable, that it's continuing to grow and develop new neuron connections throughout life.

Even at my age, that is happening as a function of those relationships and experiences, that social, emotional, and academic learning are completely linked, that the way we feel about the environment, whether we feel trust and support, whether we feel like we are stigmatized or traumatized, has everything to do with how we learn, and what we learn, and how our brains function. And that we also are very individual, that no two brains are alike. If you haven't seen Todd Rose's little TED Talk about that, I urge you to see, take a look at that. So what does that mean for an ecosystem in which we are really using evidence to build the environment?

It means that we would have schools that are really organized to support relationships, not just happy relationships in the moment, but long-term developmental relationships, which adults know students well, in which they are able to learn about the student's prior knowledge, and experiences, and background, and build on those for the curriculum in which all students feel a strong sense of belonging because an environment has been created in which the experiences of trust, and reliability, and support are always available, in which there is a connection with families that is built into that environment where families are present, where there are lots of opportunities for student, family, teacher relationships and advising, and where there are lots of ways by which families inform the school about the student as well as learning about what's going on in the school.

It's an environment where the work of inquiry is engaging, where the tasks that students are asked to do are both developmentally appropriate, of interest to them, connected to their experiences, engaging, motivating, and supported, with strong scaffolds so that they have supports to learn the next steps, where there's a lot of opportunity for revision and redemption of work. That is to say, students are always having the opportunity to try something, to get feedback, to continue to refine their work so that they develop confidence as well as competence in the work that they do, where there is explicit attention to social and emotional learning, to the development of habits and mindsets that allow us to become persevering and resilient because we are being supported to learn how to acknowledge our emotions, to cooperate with others, to manage our relationships, to make decisions, those are not things that are left aside, where everyone shares an approach to conflict management, which turns out to be a very important thing for building a safe environment for everyone, and where there's continually building that community.

Finally, it's a place where we have the wraparound supports, if you will, the integrated student supports that allow each student to get what they need, when they need it. And that means both academic supports, supports that allow students to get additional one-on-one and small group support around the content that they're learning. We could have a world in which tutoring replaces tracking, if we did that. And that we also have the supports for social services, for health and for mental health that things like community schools provide, which are really embedded in the community with families and supportive of all the needs that students bring to school. It's a tall order, I know, but we have places that are doing it, it builds on the science of learning and development, and we see that students thrive in settings like that.

Victoria Schaefer:

Okay, Linda, thank you. That was a lot. So a tall order and a beautiful vision. So Vivian, allow me to turn to you and ask you about your picture. Can you paint us a picture?

Vivian Tseng:

Well, it's hard to top Linda's vision as she has just created for us. Let me just say that. And I think what Linda just did so beautifully was to encapsulate what we know about what works in education and what that would look like if it were put into use. I think that's the gorgeous picture that Linda just painted for us. And I think my comments are complementary to that, which is... and the piece that I focused in on your question, Victoria, where is a system that all students thrive and can live up to their highest potential? And so I think that given what we know are long-standing gaps, discrepancies, differences in opportunity, that an evidence-based education ecosystem is one in which we're actively leveraging research and data to really ensure that all students have the opportunity to thrive and to reach their full potential.

So I think to do that, then we have to focus on some of the differences we see and the gaps we see that are long-standing for rural students, for example, for students with disabilities, students who are still living with a legacy of racial hierarchies in our country, we're talking about immigrant students, dual language learners, multi-language learners, we're talking about students who have different levels of economic opportunity in this country, and whose parents have different levels of education and an ability to provide enriching environments. I think as long as we're thinking about this sort of all students, then I think we have to, as a nation, and it's for our nation, then we also have to think about differences across states. And so we're also really leveraging research and data to think about how to create the kind of educational spaces that Linda described across all states. And we know from research that some of our biggest discrepancies are across state, discrepancies in terms of achievement. So we need to think about that.

You mentioned the pandemic and that students have not recovered from the pandemic. I think the other thing... and that was in terms of achievement scores, but I would say what we also learned from the pandemic is just how important schools are as a place of community, that they are not just places of learning subject matter, reading, math, history, science, computers, all these things that I didn't get when I was going through public school, but it was a place of safety where kids came together and learned to socialize. It was a source of friendships, it was a source of rich relationships between meaningful adults, their teachers, their educators and the students. And we saw that because so many parents talked about how hard it was for their kids when they didn't have those social interactions during COVID. And we really in very real time saw what the impacts of having that. And so it just tells us how important it is to be leveraging research and data to create those enriching social spaces for students.

But also, schools were a place because of inequality in our society where kids got food, and they would go... actually, they and their parents would actually go to get food, because families and kids who didn't have means, it was also a place for that. And so I think thinking through all the different things that schools provide to help us create a society where all students can thrive and reach their highest potential. And I think what we're also thinking about really developmentally, because I'm trained as a developmental psychologist, all kids eventually become adults, and we think about schools as the eight hours a day, at least a third of a child's day, and hopefully, another third of their day is spent sleeping, so half of their waking hours are spent in school. And so that's where they're also learning how to be productive adults in our society, productive, contributing, compassionate, caring adults in our society.

And so we also have to think about the civic piece of education, and how do we leverage research and data to support all that. And we actually have it. I think Linda actually pointed to some of the research that we have on that, but there's even more we can do to boost that.

Victoria Schaefer:

Okay, thank you. I'm sorry, Linda, did you say something?

Linda Darling-Hammond:

I said I love that. I love that augmentation to the vision.

Victoria Schaefer:

She did do a beautiful job of supplementing and building from what Linda said, and certainly in a way only the two of you could do to complement each other. Before we move on, I'll just ask... Linda, I did have one question, I wonder if there's any way you could drill down slightly... and I'll acknowledge, I've been reading a lot of the work in the last couple of months preparing for this, anything more you can say about the specific school? Is there an ideal school size, or class size, or big grade bands, to just drill down that facilitates the manifestations of the safe environment that create the conditions for learning and the trusting relationships, et cetera, that you described?

Linda Darling-Hammond:

I think that's a great question, and I think there are a number of things. First of all, the principle of continuity is very important for young people, and especially for children who may not have continuity in their lives. We have many, many students, for example, who are experiencing homelessness, who are in foster care, who are in various settings where continuity is difficult to achieve. But continuity is a very important thing. So schools in which students are with the same adults for more than one year actually turn out to be very important. In many countries, kids are with the same adults for at least two years or three years in elementary school, sometimes the same in high school, and they have half as many teachers over the course of their careers. We invented in the early-1900s, the factory model, the assembly line was the metaphor for how to do it.

So they went from the one-room rural schoolhouse where the teacher was with you all the time, with all the kids, to a different teacher every school year, and then in middle and high school, a different teacher every 50 minutes as you cycle through. And one of the things we've learned is that that is really a challenging way to do school, the more continuity kids have, the fewer teachers they see, the more the teachers know them well, the better. So you see that in situations where students are looping with the same teacher, you see strong achievement effects, also strong effects on trust, and being known, and understanding the routines, you don't have to start and stop all over, often, the kids who've struggled the most or the hardest to get to know are the ones who blossom the most in that next year with the same adult. In the Tennessee class I study, they had to take out the looping classrooms to get a clean read on the effects of class size because there was such a gain in achievement just from looping.

And so that continuity... I remember a Japanese principal once said, "In the first year, you look and listen. In the second year, the real learning begins." But that is important in middle and high schools, places where teachers are working in teams that share the same students. Sometimes, you'll have a teacher who is teaching humanities instead of social studies and English, or they're teaching math, science. So there are fewer teachers knowing the kids better. The teachers are also having a smaller teaching load. So if you have 40 kids on your docket instead of 80, or you have 75 instead of 150, I can say as a former high school teacher, makes a huge difference in the extent to which you can know those children well, know the parents well.

In redesigned high schools, where they have these teaching teams that share students, and also problem solve around the students, and also have advisory systems in which there's an adult who sees 15 or 20 kids every day or several times a week for support around social and emotional learning, around restorative practices, around academic... understanding what's happening academically,

checking in around the family, being able to meet regularly with the parents, those places get better outcomes because kids are well known, they have an adult that they can count on to be their advocate, to lead them through.

So these are things where to get to these features of support, we need to rethink the factory model, we need to rethink the assembly line that we inherited. We have to get away from some things that we used to believe would be true and that are clearly not true from the evidence that we now have. And if I could take a minute and just name some of those, the factory model brought with it the idea that it's all about teachers stamping kids with lessons as they passed by them, teachers have no planning time in many American schools compared to teachers in other countries where much of their time is collaborative, they're learning together, they're planning together, that makes a big difference in what they can do in teaching.

That factory model was also accompanied by the invention of the bell curve by Lewis Terman at Stanford, which was also associated with a eugenics framework that was also popular at the time. So we decided that everybody could be arrayed on a single dimension, and the goal of testing would be to see where you were along that bell curve, that does not accurately represent human learning or potential very well because you have to throw out the questions that don't discriminate, that don't have, quote, "discriminatory power," in both senses of the term, to produce the bell curve. And so we have a testing system that is also based on some of those presumptions and don't give us information about what kids actually can do very well. Part of that set of assumptions was that relationships didn't matter. So schools were not created to support relationships, it was supposed to be for selecting and sorting, and if you didn't do well, you just fall off the assembly line.

And that was one of the purposes of schools, to figure out where kids would go in life. And rather than building support systems to enable development and potential development, it was really like, "Let's figure out what the ways are that we can differentiate." So our educators have been working for many, many years to take this system and turn it into something that is developmentally appropriate and developmentally grounded, but there's a lot of work to do, and we need to be attending to the things that need to be overcome as we're trying to build the system that we want to have.

Victoria Schaefer:

So Linda, you were-

Vivian Tseng:

Let me just

Victoria Schaefer:

Sure.

Vivian Tseng:

... double down a little bit on part of what Linda was saying about the role of educators, and so we focus a lot on students. But in this vision, we have to be leveraging research and data for educators so that they can be the best teachers and instructors that they can be, so that they also have social, emotional well-being. And I think that's another lesson we really learned as a society from COVID, and we really suffered from it because teachers were under enormous stress and it really took a toll. And so this new society we have is one in which teachers are also thriving in their roles and so that they can provide what students need. And it means we get past some of the things that we see currently around attrition, that the adults who are spending the most time with kids are turning over so rapidly. And it's not across

all districts, it's the same. And so we are also thinking through how do we care for the adults who are educating and taking care of kids?

Linda Darling-Hammond:

And we do find that [inaudible 00:28:42] Vivian was saying, in places that allow adults to be organized with kids in these ways that are more relational and allow teachers to be more efficacious, you do get lower turnover rates because teachers are fed by being efficacious. If they're in a setting where they can do what they want to do for kids, that's satisfying. If they have the collegiality also with their colleagues to learn and grow together, that is what keeps people in the profession.

Victoria Schaefer:

Okay. This is fabulous. Thank you. I won't restate the vision in the interest of time, I want to skip ahead to the how question. We've painted this picture, how can we get there from where we are now? And I want to ground this just acknowledging there is a literature around capacity building, and its capacity quite broadly defined thinking about organizational capacity, human capacity, policy capacity, and resource capacity, acknowledging that all four of those types of capacities tend to move together... they move together. So I just want to ground the conversation, if possible, in any one or all of those four, and ask you to give a nod to those, if you can, in answering the how question, how do we get to this beautiful portrait you painted from where we are? And Vivian, let me start with you this time.

Vivian Tseng:

Well, if you'd let me, I want to start by backing up a little bit and I'd like to talk a little bit about, since we're talking about research and data, what it might mean to democratize evidence so that research and data can best serve the needs of communities and the public. Because if we're talking about education that serves the public, we're talking about public education, then we need to think about whether the public is able to leverage research and data to help drive the kind of schools that they want in their communities and for their students. And I point this out because we've come out of this zenith of sort of a what works movement, which accomplished many things, but the struggle it had a lot of times when it hit communities where community said, "Well, what about what we need is what works for our students, with our teachers, and our communities?"

And that's why you didn't always see widespread adoption of what works programs. And you saw that sometimes... or actually, too many times, when those experiments, the larger and more at scale they went, the less likely they were to find main effects. And at least in part, a lot of folks thinks it's about the variability that exists across communities. And so as we start to think about what it might mean to democratize evidence where communities have a stronger say, and what kind of evidence they need, and what the questions are that they have to drive the production of research to shape research agendas, and then you're going to have a more ready audience for folks who want to take up the evidence when it's produced. And the other side of democratizing evidence is also that research and data are not just in the hands of elites, but they're really in the hands of communities to leverage it so that they can wield it to make some decisions about what's meaningful for their students and their communities.

And so I think that is part of what I see as what's going to help us. We think about the research and data enterprise that we have, ground in more some of these basic principles of democracy, the people who are most affected have some say in those agendas will help us get there. So I wanted to start with that, and I also just want to pivot a little bit to talk about... because I know you've structured this series in terms of federal, state, and local... or national, state, and local. So you're really thinking about these

different levels. And I think too often, my observation is that in these policy conversations, we're often debating at which level the capacity should exist. And I've often puzzled at that framing, because why is it a finally setting on which level versus thinking about what is the adequate capacity that's needed at each level? Which does not mean it's the same capacity that's needed at each level, but it is thinking about what is the federal government best positioned to do, states, and districts, or local education agencies, and schools too.

And so really thinking through what's the capacity at different levels. It's inefficient, I would say, to try to think that every community in every state needs to do everything on its own and figure out everything on its own. Although there has to be some ability for states and communities to think about what they know about their students and what they want. But there's some efficiencies in having a strong federal role in some ways, and especially I think when it comes to research and data. I think particularly when it comes to research and data, thinking about what is the expertise that can be brought to bear across the country to help states and districts create the conditions to foster success for all students. So let me just [inaudible 00:35:04].

Victoria Schaefer:

[inaudible 00:35:08] and I'll restate your last question, which I think is focusing on research and data, what's the expertise that's brought to bear across the states, right? That's where you're leaving us right this minute. So Linda, I'm going to turn to you, acknowledging Vivian and her last probing high-level question and situate again that we're moving from the portrait you painted to how we get there. So what say you, Linda?

Linda Darling-Hammond:

By the way, I'm moving around... Oh, my internet is unstable, so I'm going to find a place where I have better internet. Okay? So give me a minute because this room is not giving me good internet and I'm going to move to another part of my house. Maybe I should give you the tour as I'm moving here.

Victoria Schaefer:

Jenny, I noticed you say my audio is hard to hear. I'll try to be sure to speak closer to the mic. Thanks for speaking up.

Linda Darling-Hammond:

And I think I'm getting better internet now. Here we are. Now, we're in the living room, right near an internet booster. You can see the Father's Day balloon in the background.

Victoria Schaefer:

Perfect.

Linda Darling-Hammond:

So I just wanted to start by saying I'm really glad that you identified the four areas, you have the organizational, human... whoops, policy, and resource capacities that are needed... and I am trying to get my video to stay on, but it doesn't want to do that.

Victoria Schaefer:

We can hear you. So that was-

Linda Darling-Hammond:

Okay. So we'll just go ahead.

Victoria Schaefer:

Hopefully, your picture will come back.

Linda Darling-Hammond:

Maybe it will, having a technology day. And I think that's really important because a lot of times, people say, "Well, if we want to do all these things, we just got to get teachers to do a better job." And teachers live in an ecosystem, and what they can do depends on what the resource capacities are, what the organizational capabilities are. I would say policy influences all of those, so I would pull policy out as its own thing and talk about how we can leverage each of those. But I know when I was teaching in big factory model high schools years ago, I realized that the school was not designed for me to allow me to do what I wanted to do for my students, the resources weren't there, I was in Camden, New Jersey in my first setting when they weren't getting any money from the state before the lawsuit finally was successful, I was inadequately prepared as a teacher, so I did not have the capacity to do all the things I wanted to do.

So you realize that there's a lot of forces out there that are influencing what can happen in the classroom. So of course, preparing educators to deeply understand the science, the evidence, the way people learn is, of course, a huge piece of this. And there's a whole policy agenda for improving the quality of preparation and for ensuring that everyone can afford to get preparation. In the United States, unlike a lot of high achieving countries where all teachers are well-prepared for free at government expense, and sometimes, they earn a salary or a stipend while they're training, in the United States, there's very little support for people to get prepared, it depends on how much you can afford to do, there aren't good support systems to ensure that all teachers get access to the knowledge that they need so that all students will get access to well-prepared teachers.

So that's number one. You've got to... there's a whole policy agenda there, both around the quality of preparation and around the financial supports for high quality programs and for candidates to be able to attend those programs without going into debt, without having to choose how much they'll get depending on how much they can afford. So that's one. But then teachers have to be in settings, in school environments that are thoughtful environments. And I often think of a policy triangle, at the top is meaningful learning in productive environments. You have to focus the system on the right kind of learning and on the productive environments in which it can take place. Then you've got professional capacity, you have to build the professional capacity to teach it that way. Then you have resource accountability, which matches onto your categories, Victoria, at the start. So in order to get there, we have to focus the system on meaningful learning.

That means that we need to be thinking about the ways in which we structure curriculum, instruction, and assessment. A lot of our structures for that are still pointed at the old transmission teaching of the bygone era and not at the future where kids are going to be needing to be engaged in really independent work, critical problem solving, the ability to find and use knowledge, put it together in new ways, produce solutions and understandings, and then create the products and solutions that they need and then vet them themselves, and figure out how to be self-managing and improving what they do, all of those things, which we think of as what the folks at Google called learning ability, which is the predictor of success at a place like Google, those are not being assessed in our standardized tests that drive a lot of the curriculum policy in school.

We're still, to a great extent, saying, "Can you remember things? And pick one answer out of five." So that's a piece of it. There's the curriculum that engages kids in the right kind of deep inquiry and brings direct instruction and inquiry together in the right ways. It's not an either or, it's almost always a both. And then being sure that the curriculum is focused on the meaningful learning for today and tomorrow, which is changing so rapidly. Just a little bird walk on that. With AI changing so much around us, there are a number of forecasts that suggests that between 2025, this year, and 2030, about a third of our jobs will disappear or be radically redesigned because of AI. So if you're going to prepare yourself for that economy, for that reality, you've got to think about whether the Committee of Ten and 1892, which laid out the curriculum that we're still using, anticipated what you would need to know to be successful in that economy.

So we do have a lot of work to do to create the incentives and the supports for meaningful learning in today's economy and in today's society. I want to include civic engagement and civic learning in that because that's obviously so needed today as always, and then to create these productive environments. And there's a lot of policy work to do to move us to the kinds of environments that are designed in relational ways and to the kinds of curriculum assessment and instruction that are needed. And then finally, of course, there's resource accountability. And Vivian started off identifying the fact that we have so much inequality in our society. We are, frankly, at the point where there's more concentration of wealth in the hands of the few, the top 1% controls more than 50% of the wealth in this country, that's going to become more so, and people are having a very hard time, and many, many parts of the country just making ends meet, much less being able to live a full life with housing and education.

So there's social inequality that is deepening, that's layered on a set of ideas about who deserves to get resources. And then we have educational inequalities on top of that, because in most states, still, there's more money spent on the education of wealthy kids than on the education of low-income kids. Although some states have changed that, there's still a preponderance. And so to get to these ideals, we really have to be thinking about transforming the resource system. I would argue that that includes not just equalizing school funding in ways that give enough money to the education of students who have less resources at home, but also building community school settings in which we're providing the family engagement, the healthcare, the mental health care, the social service supports as the hub of the community, where, in fact, kids can come to school and be sure that all of the elements that they need to thrive are available there. All of those areas need attention for us to get to the vision that we put forth at the beginning.

Victoria Schaefer:

Okay. Thank you, Linda and Vivian, both of you for answering this how question. I want to pivot from a point Linda made. I'm so glad she referenced this committee from 1892 because it allows me to ask this what's going to be our final question, looking at the clock here, it's about who. I asked you how, now, I'm asking you who and what the roles are. Help us understand who the key players are and what their roles need to be. And I think of a national stage, acknowledging Vivian's comment about this is layered, and we need an efficient approach so that there aren't built-in redundancies, but on that national stage, who are the key players and what role do they play? Because we've got to move beyond that committee from 1892 now. So I will start, Vivian, with you since we just finished with Linda. Vivian, who are the key players and what are their roles on the national stage?

Vivian Tseng:

Well, since this is a session on an evidence-informed education ecosystem, I think, of course, there's a role for researchers. And I think the role for researchers is to be partnering with educators, with

communities, with decision-makers so that we are continuing to both produce the research that's most useful for some of the most persistent challenges we have. That's part of it, but I don't think we can end at the research production part because as you started this session with, we actually have a lot of research that's not being used. And so I think there's also a role for researchers, and I don't mean every researcher, because I can hear some academics starting to get uncomfortable that they have to go out and do other things, but there's certainly a role for the researchers who want to engage to help decision-makers in the education system to help communities make sense of research, because there's a false idea that research just always speaks for itself.

But of course, when you're applying research to any decision, it has to be interpreted, people have to make sense of it, what does it mean for our community and for the decisions that are in front of us? And so I think there's a role for at least some researchers to play in helping to make sense of research and to piece it together with all the different other things that people are going to have to grab with, values, resources, implementation barriers, all of this stuff, to arrive the best decisions possible. Because if you want an evidence-based system, you probably don't want to have researchers off to one side and other folks doing that, you want to have folks, researchers also, at the table in some of those key moments. So of course, there's a role for researchers. Because I represent philanthropy, I'll offer up what I also think is a role for philanthropy.

In philanthropy, we have this special tax status, and it's because the bargain there is that we're serving the public good. And so I think for those of us in philanthropy who are invested in education, it's thinking about how do we make sure that the investments that we're making are invested in this public good of education. So whether it's supporting research, whether it's in the production of it, whether it's in supporting the use of it, the democratization of it, so that it can be brought to bear and really leveraged, we should be making sure that the agendas of philanthropy is not just driven by individual leaders, but really, by a common good. I think that's part of the bargain that we have in the society in which we should uphold. And I will leave the rest to Linda, because Linda has so much experience across so many of these worlds.

Victoria Schaefer:

Right. Thank you, Vivian. Linda.

Linda Darling-Hammond:

Well, I'll add on to Vivian's and simply say I certainly agree with all of that. And then I think we need connectors, people who connect all of those things, because we live in silos. And so figuring that out. Learning Policy Institute is the organization I work with now and I started 10 years ago to create those connectors. It was clear to me that there was a lot of really important research that gives us a lot of insight into what we should do for kids in schools, there's a lot of policy happening, and there was no relationship between the two. So we really set out to build a little rope bridge across the Grand Canyon, which is the image I had, to bring research directly into policy, to connect the dots, if you will.

We work directly with policymakers in the Congress, in all 50 states, we've worked with policymakers, we work with governors, and legislators, and chief state school officers, and wherever the... and to do part of what Vivian described, which is you have to interpret the research, you have to know about not just this one study that you've done, but what does the basket of research suggest about various topics, and then what's the implication of that for how you'd build a policy to use it.

So we need that kind of connective tissue in a very well-developed way. And then we want, for example, research to be part of what's happening in the education of educators so that they are actually themselves connectors, they're using the research, they're bringing it into their practice, they're sharing

it with their colleagues, and with parents, and with others. In many, many countries around the world, if you look at teacher education, research is a very important part of teacher education. In Finland, the little exam that you take to become a teacher involves interpreting research articles. They want to see if you have that sensibility. You have to do action research yourself as part of the preparation. In China and Singapore, and a lot of other places, you're used doing action research on a regular basis.

So the notion that the teacher and the school leader, our researchers, if you will, our inquirers into practice, allows them to be connecting these worlds as well. Similarly, in communities, we need parents and community folks who are interested in and engaged in understanding research and bringing what we know into practice. And it needs to be made accessible in a lot of ways for... we appreciate our research journals, but we also have to have ways to communicate with all of the audiences in the education ecosystem. So I would just say that those organizations and people, and roles, and support systems for connection are very, very important.

Victoria Schaefer:

Okay. Thank you both so very much. I'm mindful of the time, and we did promise our audience that we would give the opportunity for questions. We have at least one right now in the Q&A box. I'm going to pause and invite the people who are with us to ask additional questions. And right now, I'm going to read this first question from Amanda Fixey. She comments, "Hey, I love hearing that data and reflection on data is a part of the visioning for thriving education ecosystem. But to go beyond this, how can we also elevate implementation science, practice, and support as a part of that vision for a thriving education ecosystem?" So Vivian or Linda, do either of you want to tackle that first?

Linda Darling-Hammond:

Well, I'd just like to appreciate the question, because implementation is the great slip between the cup and the lip. And understanding implementation, implementation science, and supports is so critically important. It's why so many good ideas fail to be well implemented and enacted, it's because we don't think about what do you need to do to be sure that people have the knowledge, the capacity, the organizational supports, et cetera, to be able to implement as well as the process of collecting data and reflecting on the data and continually improving the implementation process. So I just appreciate the question, I think it's right on the money, and it is something that everyone who's involved in this work needs to appreciate and understand.

Vivian Tseng:

Yeah, I agree. I love this question as well. And it's interesting because we started this conversation, Victoria, you were talking about what works, and when I've really dug in and studied the thinking, the paradigm around what works, it's interesting because implementation was often defined by implementation scientists... `not all of them, but there was this proliferation of thinking that implementation was a lot about how many times things were different, it was a quantity of implementation, and it was about fidelity of [inaudible 00:54:26]. And that was really interesting because that's how a lot of researchers define implementation, but when you got out into the field, the people who actually have to do the implementation, the implementers, those were not usually their implementation questions, their implementation questions were, "Okay, how do I train up people to do this? And what if I have all this variation and some people do it this way and some people do it that way?"

Or they thought about implementation in terms of resources and how am I going to finance this? Or in schools, because there's lots of things going on in schools at the same time. They're thinking about how

do I implement this, at the same time, about this, this and this going on? So those, in the real world, were the implementation questions. And I think we have to get to a place where research is more often aligned with the implementation questions that implementers have so that we are providing them the kind of evidence that they need to do a great job of implementation. Otherwise, we're just missing each other in these [inaudible 00:55:28].

Linda Darling-Hammond:

I would add one thing, which is that we've learned through a lot of research that fidelity is often not the best way to get good outcomes, sometimes, you have to adapt whatever it is to the context to get the good outcomes. I remember Milbrey McLaughlin's early study on this when she said, "You can't mandate what matters most." You can have a mandate, you can have an idea, but when it reaches the field, there are times where to make it work, you have to also be adaptive. It is sometimes true that the higher fidelity in implementing something makes a big difference positively, but there are also times when that causes the effort to crash and burn because it's not being adaptive sufficiently. So both of those things are true, which is why implementation science and getting better at getting better is so important, because then you can identify those things that need to be addressed in order to be successful.

Victoria Schaefer:

Thank you, both. This has been so interesting. I'm so grateful, and I wish we had more time, but we are approaching the very end of our time. Do either of you want to take 15 seconds to have any last words or advice for our guests and the exponential number of them who will watch a recording who are not here with us live?

Linda Darling-Hammond:

Well, I guess maybe I'll leave our thinking on the point that we were just making, that in all of this, it is easy to be daunted by a vision of the future that is so different from the realities that we have today. And I remember when Maya Angelou said, "When we know better, we do better," that as we learn things, all we can expect of ourselves is to use what we're learning and not to be negative about where we've been. We build on our experience, we adapt to our environments, and then to, as we learn more, engage in the step-by-step processes of really learning to get better over time. And so I think it's just important to have a frame of reference. We often, in the United States, blame people for not wanting to reform or something, but we always have these waves of reform and new ideas, and it's a very important thing to also have continuity in your practice and to be able to be deliberative and reflective in the process of changing what we do.

So I just want to leave us with the idea that that is right and good, that we also... we want to create environments in which educators and kids can thrive, and sometimes, that means some pretty big changes from what we're doing now, and we need to understand what those might be. At the same time, we need to acknowledge that everyone is in the field and doing the work is doing the very best they can do in the context that they're in, and as we learn more, we do better.

Vivian Tseng:

If I can add one thing, that something Linda said earlier really struck me, it was about AI, and all of a sudden, I'm a little worried about all of these jobs. But I think one of the basic points you kind of struck for me, Linda, is that we are also in a world that's constantly changing and evolving, and that tells me that research and data can play a very important role for this quickly evolving world that we're in and

the ways in which education system is going to also need to evolve. And so that just left me with, wow, what a powerful time it could be for research and data to help us meet this future that is evolving right in front of us.

Victoria Schaefer:

Thank you. All right. On that note, one final thank you to our panelists, and thank you to all of our attendees, we appreciate you joining us. We'll quickly announced that we have two more, one will be on August 5th, one on August 29th, both of the next webinars will take place at 3:30 PM, Eastern Time. Be sure to register and wait for our recordings to be posted. Thank you, everyone, and have a wonderful rest of your day. Bye-bye.