THE BROOKINGS INSTITUTION

WEBINAR

CONTEXTUALIZING PEDAGOGY: A DISCUSSION ON THE SPARKS WORKING PAPERS

Washington, D.C.

Tuesday, September 3, 2024

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DYL: I would like to send a warm welcome to all those who have joined us virtually. Thank you so much for taking the time to attend the Contextualizing Pedagogy webinar hosted by the Brookings Institution Center for Universal Education. My name is Rachel Dyl. I am the Senior Project Coordinator and Research Analyst for these Strengthening Pedagogical Approaches for Relevant Knowledge and Skills, or SPARKS Project at QE. I'm going to be providing a brief introduction to the SPARKS Project and our conceptual framework for the recently launched working papers. We will then hear from our panel, allow time for questions and answers and we'll close by foreshadowing some of our work in Egypt, India and Mexico. I'd like to remind you at this time to please either submit your questions through the question in a function on, the webinar, or please submit your questions via Twitter using the hashtag #ConceptualizingPedagogy or by emailing events@Brookings.edu.

We'll have time for these questions and answers after the panel discussion. Here's just the brief overview for our webinar this morning for you to look forward to. Our first giving an introduction to Why SPARKS. So as I previously mentioned, Spark stands for Strengthening Pedagogical Approaches for Relevant Knowledge and Skills in the international education development space. There has been this ongoing search for more specific pedagogical approaches that are proven to improve classroom practice and student outcomes. However, one of the biggest barriers to effective pedagogical reform is assuming that these approaches are generalizable and transferable without considering how to adapt them to the local context.

Therefore, the SPARKS Project of Brookings Amherst, in order to examine why, despite these various efforts and large investments across the space to move towards more innovative pedagogical approaches, classroom practice has not changed drastically. Many policies, research and training programs have concentrated on these more visible aspects of pedagogies such as student teacher interaction, classroom management practices, assessment tools, and discipline strategies. These elements we see as being above the iceberg. However, beneath the surface elements such as culture, local education, ecosystems, and learning theories are just some of the factors that can also inform teachers choices and shape how teachers teach and how students learn.

So for SPARKS, we focus on these three categories. We refer to them as the invisible pedagogical mindsets, the multifaceted, interconnected, and unobservable elements beneath the iceberg that we don't often pay enough attention to, and that impacts pedagogical approaches in the classroom. So more on what exactly are these invisible pedagogical mindsets? You see these three larger categories. We utilize UNESCO's definition of culture as the set of distinctive spiritual, material, intellectual and emotional features of society, or a social group that encompasses not only art and literature, but life styles, ways of living together, value systems, traditions and beliefs. Because knowledge is situated within its social context, an individual's learning is shaped by these social processes and values within a cultural context.

For the second category, local education ecosystems. The term ecosystem comes from the field of biology and can describe the interdependence of multiple organisms and their natural environment and education. Local ecosystems highlight a diversity of thought, knowledge and expertise amongst actors, and the importance of contextualization to address local challenges. As you can see in the graphic here, local education ecosystems can include the policies, curriculum assessments, instruction time, classroom size, as well as politics, technology and different forms of education outlets. The third category would be used to define invisible pedagogical mindsets is learning theories from behaviorism to constructivism. Many scholars over the years have attempted to provide learning theories about how students should best learn, and how knowledge is created to be transferred to the classroom. The different epistemologies or ways of knowing that support various learning theories are very closely connected to the pedagogical approaches that teachers employ in the classroom, and can affect how knowledge is presented, created, and reflected upon.

Therefore, these three categories are what we collectively define as the invisible pedagogical mindsets. And how exactly are we addressing these within the SPARKS Project? The SPARKS Project has a two pronged approach that you can see here. SPARK supports three research policy collaboratives in Egypt, India and Mexico. This model is based on the Research Policy Practice Partnership Model, or RBP model, that's common in the United States and Canada.

SPARKS Research Policy collaboratives bring together a myriad of actors, policymakers, educators, researchers, families, and others within the local education ecosystems to discuss the role of these invisible pedagogical mindsets in shaping classroom practice. The aim of the collaboratives is to bridge this gap between research insights, policy formulation, and effective classroom implementation within these different local settings. The SPARKS Global Network brings together these members of the research policy collaboratives in Egypt, India and Mexico, as well as other education actors interested in pedagogy as a tool for education systems transformation. The SPARKS Global Network allows space to participate in dialog and discussions, promote knowledge sharing across countries and systems, amplify local perspectives on pedagogies and produce knowledge products about invisible pedagogical mindsets.

Today, specifically, we are highlighting the Three SPARKS working papers that provide the conceptual framework for the project and serve as references and conversation starters for policymakers, educators, and researchers navigating pedagogical reform. The three papers explain how pedagogical reform can benefit from locally driven, collaborative research on how culture, local education, ecosystems and learning theories, the invisible pedagogical mindsets influence pedagogical choices in the classroom and how policymakers are imagining reform. So I'll just give a brief overview of what the three papers entail. You can find these on Brookings.Edu. Before we get into our panel discussion. So working paper one is the what what's a different pedagogy, different definitions of pedagogy promote.

And it emphasizes the importance of invisible pedagogical mindsets for pedagogical reforms and sets the conceptual framework and stage for the following two working papers. Working paper two explains the why. Why is it important to examine invisible pedagogical mindsets to contextualize pedagogical reform, and it outlines the challenges of taking a best practices approach, as seen with the generalized implementation of student centered pedagogies as a really popular approach, in the international education development space. And finally, Working Paper three details the how we're using collaborative research methodologies in the SPARKS project with our research policy collaboratives.

So help ensure that all actors across the education ecosystem are considering the invisible pedagogical mindsets as it relates to pedagogical reform, and especially as it responds to local contexts. It is now my pleasure to introduce you to my colleague Brad Olsen, who will moderate our panel discussion today. Brad Olson is a Senior Fellow with the Center for Universal Education and the Global Economy and Development Program at the Brookings Institution, and served as our Editor for the three working papers. Prior to Brookings, Olson was a Professor of Education at the University of California, Santa Cruz. And his research focuses on teachers teaching, teacher development, school reform, global comparative education, and qualitative research methods at Brookings. Olson's work centers on research and policy around the scaling of education, innovations for systemic improvement, and low and middle income countries around the world. Brad, I'll hand it over to you. Thank you.

OLSEN: Thank you, Rachel. Hi, everyone. I'm Brad Olsen, and I'm a Senior Fellow at the Brookings Institution, as Rachel mentioned. And I want to thank Rachel and Omar for inviting me to participate today. I think this is going to be a really interesting conversation. I want to take just a minute to kind of extend the framing that Rachel began, and then I'll introduce the panelists, and then we'll engage in a deep and substantive conversation about this topic. Along the way, I encourage you all to include your own questions. We're going to have about 20 minutes for Q&A, and I really look forward to your questions. There are three ways you can do that. You can use Twitter x, hashtag #ContextualizingPedagogy.

You can email us a question if you'd like at events@brookings.edu, or perhaps most easily, you can put the questions in the Q&A function at the bottom of this zoom. And then when it comes time for the Q&A, we'll draw on those questions to extend the conversation. So, invisible pedagogical mindsets, I know that's a little bit of a mouthful of a term, but I think it gets it's something that's really interesting. Rachel talked about the iceberg metaphor, and I think that's a really useful metaphor. You've got the tip of the iceberg, the people, the things that people notice. But all of this underlying substantive structure below it. And I think the importance of this metaphor is that what we aren't paying attention to, we cannot see.

And what we cannot see has unexamined power over us and the participants engaged in education. And so by exposing, by examining, by better understanding what's below the tip of the iceberg, we're better able to harness those forces for good rather than allow them to have historical control over us. I think another metaphor that might be useful is the is the notion of the toy top. That toy top that you spin. I've got one right here. Right. And so this is another metaphor we might use. Imagine that teaching is like this toy top. There's a heavy big weight that comes down to a very sharp point at the bottom. That sharp point at the bottom spins against the surface on which the top exists. I'd like to think that the surface is the students and the learning and the classroom and other learning contexts.

And that sharp point is the teacher and the teacher's engagement, whether those are linguistic interactions, curriculum use, learning activities, assessment practices, the work of the teacher, engaging with the students is where that point meets the surface. But what we don't often think about, and I think the real value of the invisible pedagogical mindset is that that point is receiving an awful lot of weight, and the weight is shaping the way the point touches the surface. As Rachel pointed out, there are ways to categorize the forces that exert their weight on a teacher's everyday practices. I might suggest that there are the teacher's own biography and their professional training, the mix of local and regional cultures, the various structures, curricula, policies and systems in place for education in the particular context, including student assessment systems and various teaching incentives. These are parts of the weight, current and local, current, local and regional attitudes and beliefs around schooling and education reform, the policy culture, and then national and global reform context.

All of those and together in various ways, and exert a kind of weight on the individual teacher that orients the teacher to their work with students in actual contexts. And I think that's the goal of the concept of the, of the invisible pedagogical mindset is to understand that and to examine it and to make productive use of it. And so that's what we're going to talk about today. I look forward to introducing the panelists right now. And then we'll engage in a conversation. First is Doctor Gabriella Arenge, who is an ESRC Postdoctoral Fellow at the University of Cambridge's Faculty of Education.

She studies educational change with a specific focus on teacher professional development and learning, and has worked with the World Bank, the UK Cabinet Office and Youth Impact. Welcome, Gabrielle. Second is Professor Jim Williams. James Williams teaches at the George Washington University, where he is the Chair Holder of the UNESCO Chair of International Education for Development and Professor of International Education and International Affairs, whose written scores of articles and books and has worked on international education for many years. Our third panelist is Ghulam Omar Qargha, who is a Fellow at the Center for the Universal Education at Brookings, and therefore, along with Rachel, a colleague of mine, where he leads the SPARKS Project.

This project, as you've heard already, privileges collaborative research to focus on how various factors influence pedagogy, pedagogy, and local contexts. If you'd like to learn more about these wonderful professionals, you can either look at the email invitation that you received last week, or you can find them online or in LinkedIn. So thank you Gabby. Thank you Jim. Thank you Omar. What I'm really looking forward to is that we can actually have a conversation about some of the contours, implications, and value of looking at this concept of the invisible pedagogical mindset. I might start by asking one question to all three of you. I'll start with you, Gabby. How can researchers and practitioners use the concept of invisible pedagogical mindsets?

ARENGE: Thanks so much for your question, Brad, and it's a pleasure to be here today with everyone in the audience and my fellow panelists. I'm going to use IPM as just a way to invisible pedagogical mindsets. A mouthful for me, so I apologize if I'm using that acronym, but I think IPM is an incredibly useful conceptual tool that researchers and practitioners can use. I want to highlight just two ways I think we can be using it. First, more from the researcher lens. I think it can help us understand and explain why sometimes pedagogic change initiatives might actually play out in practice. As outlined in the working papers, there's a lot of research across contexts that shows that when change initiatives conflict and really deep ways across several levels of IPM, at the different, you know, all the different bubbles, there can be resistance to adopting new approaches.

And this can happen at the local level amongst teachers, amongst students, even school leaders, and even at the policy maker level. And so I think in IPM does a really good job at breaking down all these

different aspects, that affect existing pedagogic practice and helps us to guide our focus to different levels, to try and understand how and why some innovations may be taken up and others might not. I think just one example is there's evidence that some teachers may resist approaches that they perceive as coming from outside their local context that might be funded internationally, for example, or there's instances where teachers themselves are really excited about new approaches, but they feel a little bit constrained by the local education ecosystems or school norms or even classroom norms.

And so trying new approaches can be really risky. And so I think, again, these are different aspects of the IPM that can have a bearing on the types of practices that we take up, and that this conceptual framework can help us try and anticipate where there might be contradictions between new approaches and existing practices, and where there might be synergies that we want to harness. The second point I want to highlight really briefly is that I think you touched on this earlier, when IPM are drawn out and made explicit, especially in professional development or in change initiatives, they can become a critical resource for us to actually identify opportunities for change. And I've found this in some of my own research in the wider literature in Southern Africa, at the end, making them explicit, so valuable because, as you said, they can be really easy to overlook that we take them for granted, especially aspects of culture and learning theories. We don't talk about them on a daily basis, and we can't really see them in a practical sense. And we might not really be aware of some of the things that are affecting us.

But by making them explicit, we can really start to interrogate and question our existing education ecosystems and notice what we might like to change. Maybe some things we don't want to change at all. We feel really good about these core values and beliefs underpinning some aspects of education, but maybe there are some collective beliefs or, systems that actually we feel ready to change. And so by making these really explicit, we can start to have those critical conversations and bring, again, sort of our existing ways of working in conversation with new approaches we may encounter elsewhere. I'll pause there for now, and I'm keen to hear what the other panelists have to say.

OLSEN: Right. Really interesting. And I think you're sort of laying out some topics for us to get into. Jim, I'm going to turn to you now and ask the same question. How can researchers and practitioners actually use the concept of IPMs?

WILLIAMS: Okay. Well, thank you again for, hosting the panel and for inviting me to take part. Really interesting question. Of course. And, I guess I see a couple of ways, several of which, just to underscore, have been mentioned already. But just too aware, to raise awareness on the part of teachers, researchers, policy makers, perhaps parents and others, but at least teachers, policymakers and, researchers that there are such things as IPM just to call attention to the part of the iceberg beneath the surface. To look for them, identify them, and to, to enhance the sort of teachers reflexivity, to, in a sense, to enable teachers to learn, and others to learn about teachers. But teaching, you know, moving in a sense, from a perspective of what, of externally defined, reform to internally define reform.

Some, they enable us to help enhance teacher agency and learning and to practice, they enable us they help us to get at the core practice of, of teaching that is often very, very resistant to change has been, has been noted. And the resistance is not necessarily conscious, but unconscious and hopefully, of course, influencing, to help researchers better understand, IPM's to understand, I think to understand resistance is important in identifying the, IPM's, and to really take resistance, not simply as noncompliance, but as indicative of important, issues that are touched on. Also to identify patterns. I think we often as, as policymakers want to know what to do. And I think we need to move from, from either a focus on everything is different or everything is the same. To something of things are different but in patterned ways, and we can understand those patterns. And so I think it's helpful. The IPM are useful to help researchers and then policymakers think about the patterns, of IPM's that they see and how they can be, better utilized. Oh, if that makes any sense. But that's my thought.

OLSEN: No, I think that makes a lot of sense. And I've taken a couple of notes for things that I want to ask the three of you, based on what you've said. But first, I'd like to turn to Omar and, ask you this question. Omar, how can researchers and practitioners use the concept of invisible pedagogical mindsets?

QARGHA: Well, thank you, Brad. And, thank you for the introduction. And, great to be here on the panel with, the distinguished colleagues here. I think a lot of the issues have already been touched on. I'll elucidate on two particular ways. Education is something that is affected by everything in our society and everything in society, affects education, and education affects everything in society, vice versa. The example of the top toy that you used in at the beginning, I think is the excellent example. There's a lot of weight that comes on, on the teacher and on the classroom. And at the time when we're trying to do education systems transformation, to improve our educational systems, to be relevant to, to be responsive, I think understanding all of these different factors, the culture, ecosystem, learning theories and everything else that affects teaching and learning, it makes us have a better understanding of the environment. Too often we place all of the burden and all of the responsibility on the teacher.

Why isn't education changing? It's because the teachers are doing X, Y, and Z. Certainly the teachers have that incredible role of being that point of snap top that turns everything around. But the, everything that comes together on the teacher is an incredibly important part of this equation. And unless we pay attention to that, our education system transformation is going to be skewed. It's going to get off balance. And that's that thing is not going to spend in the right way. So I think the first thing that this can be used, the invisible, invisible pedagogical mindsets can be used for researchers, practitioners and policymakers to understand that this activity of education is quite complex, and we have to look at it from an ecosystem perspective.

And if we want education system transformation to take place, all of these parts have to come together in a balance for this to work out. The second part of this is something that, Jim alluded to in terms of resistance. Why, when we put in so much efforts to change classroom practice, often we look at resistance as a negative that teachers aren't doing this because they're lazy. They don't have it. When we look at it from a deficit model. And both of those things could be true. But teachers, this invisible pedagogical mindset introduces this third element, and in which it helps us to look at teachers as professionals.

The fact that they're resisting means that something is not working. And if we look into these deeper issues of how the invisible pedagogical mindsets could be affecting, our change and why teachers are resisting it, then it might help us come up with, better, better reform agendas.

OLSEN: Great. Cool. Let's, let's dig into that a little bit. I, I think that, you know, one of the threads that seems to have come through all three of your responses, although I think, Jim, you're the only one who labeled it explicitly, is this notion of teacher agency. So, Gabby, you talked a little bit about how we should maybe, reframe teacher resistance or how teachers mediate reforms and maybe enact them in ways other than, how the policymakers intended, or maybe they don't want to enact them at all. And then I think, you know, you picked up on that, Jim, and talked a little bit about that and talked about the agency of the teacher. And then, Omar, you just talked a little bit more about that and talked about how what it would look like to frame teachers as the professionals and actually listen to them. So I want to get at this a little bit, because I'm picking up on two paradoxes in this idea here.

One of them is if we stick with the metaphor of the top, is it fair to say that teachers are being shaped by all of those influences in ways that actually make them not agenda of individuals at all, but merely receptacles or instantiations of all the stuff that has been done to them. Sidney Sugarman once said, what's done to children? They will do to society. And I'm wondering if we can say what's done to teachers they do in the classroom. And so where does the agency in all of that? And then parallel to that is another paradox that I'm picking up on. How do we know the teachers are right? What how do we know that in any given context, their resistance or their mediation of the reform is the right way to go about this? Right? And that the system or the policy is necessarily, ill, ill fit to the context. Could it, in fact be the other way around, and that teachers maybe could think about how to enact the reform or the meaning of the reform in different ways?

And I know the answer to almost all paradoxes. Is there somewhere in the middle where you get the balance right? So I have a feeling I don't want to predict your answers. You're going to go with some kind of a balance. If so, I'd like to hear how that balance actually works and what it looks like. So my follow up question to the three of you, and we'll go in reverse order this time is how do you think about

teacher agency teachers as professionals valuing the teacher resistance within the concept of invisible pedagogical mindsets? Omar.

QARGHA: Those are excellent questions. And yeah, I think, the paradoxes exist and as you mentioned, finding the balance is the key, especially at the top as, as in, as a metaphor, because it's all based on that balance. So I think that there's definitely this issue that, teachers are not always right. There's, there could be bad teachers. That's, definitely an issue that exists. And I think that for me. I'll share two thoughts on this. One is that having an ecosystem approach in which we use, we go into the teaching profession by trusting teachers that they are professionals and they're doing their best to make sure that their students are progressing within their own systems as best as we as they can. I think we have to take that approach rather than the, negative approach, to assume that teachers are not doing what they're supposed to do. By empowering them, by conveying to them that we do trust them as, as professionals.

I think that will create an environment in which this flourishing of doing the best that they can, can really take, take home. How do we know which teachers are not doing what they're supposed to be doing? I think this is where localized, contextualized approaches to teacher training and teacher monitoring, becomes really important and how that is done. I don't think there's a simple solution that can be applied across the board. I think the educational systems have to look at what the purposes of education are, how they're recruiting people into the teaching profession, how they're being compensated for that time, what kind of a, framework we're giving to teachers in terms of time allocation, curriculum design, and what we're expecting it out, out of them. I think if we take that approach and, and, and bring up the issue of families, communities and student voices to really know whether teachers are making a difference rather than, outside technicians coming in and, and trying to decide whether a teacher is doing something right or wrong. So I think that's, that's one way that we can, approach this paradox, but I would be really interested in knowing what our other panelists have to say about this.

OLSEN: Thanks so much. For Jim, I think you're going to have to turn yourself off mute.

WILLIAMS: There we go. Okay. This is, a persistent audition. The, teachers are like other humans. They want to do a good job. Other professionals, they want to do a good job. Surely, and they also do. Simplified their work, but manage it so they can get it done. And be paid for it. And so I think it's important to recognize that teachers, what part of the top is surely the mass of, expectations rules for, you know, innovations that come at teachers and part of the weight. And so how teachers manage all that is something we also we need to look at, I think in thinking about how to improve the situation. And so well, that's one piece and not really, linearly related. Teacher agency. I don't know. What? I think it's good to. Pictures of how attentive they feel. My guess is that most teachers, much of the time, feel like they don't have a whole lot of agency.

But this would be something to explore with teachers. But they don't have a whole lot of agency because they've got, you know, 25, 30 kids in the class because of tests, because of regulations. Because of the limits of time and such as that. And so. I think the agency part of the value of IPM is that it? So teachers, do what they are set up, what they think they should do. The decisions of how they do, what they think they should do are heavily influenced by the IP apps. And I think helping teachers to become aware of the choices they in fact make, but maybe don't make consciously, is an important part of the training process that can help improve. Teacher oh, teacher awareness of their agency. So I think the awareness of IPM is not, the lack of awareness helps prevent some of the agency didn't. In fact, teachers probably have. So that's fine.

OLSEN: No, no. That's helpful. You know that last point of yours, Jim, reminds me of a quote by Franz Boaz that I really liked. He says, only when individuals have recognized the shackles that history has placed upon them are they free to break them. And so until you acknowledge and understand and even see that the top of the of the of the top, you have no ability to, to take control over it. So I think that's a really interesting point about teacher agency. And it makes me wonder how all of us in this space can work to create conditions where teachers have the right kinds of agency to enact the kinds of expertise and knowledge of the proximity that they actually have. I think that's helpful. Thanks, Jim. Gabrielle, let's turn to you.

ARENGE: Thanks. I think to that point, there's a really interesting potential opportunity to support this kind of strategic agency that as teachers become more aware of the context that can be extremely constraining or enabling for their own action. I think having explicit conversations about this in professional learning programs, development courses in learning communities and having a discussion about how can we actually navigate these contexts, I think in making it explicit and then orienting it towards action and giving teachers a chance to sort of express the extent to which they believe they can navigate these systems. But then also trying to, again, sort of collectively generate solutions. I've seen that in my own research.

This kind of problem solving and strategic agency, can be a really generative way to, to navigate these what feels like a very impossible situation sometimes all the various pressures placed on teachers. There's one other point I wanted to add, which is about just you had a question about how do we know that teachers are right. I think understanding that the logic guiding teachers behaviors and decision making and, oftentimes, I mean, there's always a logic to it. And just taking teachers voice seriously, and understanding what their goals are at a particular moment. And recognize that the goals that teachers may have may be different from the, you know, the new pedagogic approach that's being asked of them. And so just bringing that out, making it explicit, taking, yeah, their perspectives very seriously, and understanding their rationales and, respecting them and then also using that as a launching point to, to support for their learning, I think.

OLSEN: Great. Thanks. This conversation is very nicely moving into the next question that I'd like to ask. I'd like to talk a little bit about best practices in teaching and in education policy, because I think in some ways, the concept of best practices gets at the same notion of how do we balance paradoxical opposing forces? On the one hand, there seems to be a real interest in localizing and contextualizing pedagogy and an understanding that every site, every group of students, every teacher is a unique situation. As Jim talked about, there may be uniqueness, but there may be patterns to the uniqueness. And so I think on the one hand, there is this notion that any site is its own situated reality. And then I think that there's this other popular movement right now in global education about best practices.

Why don't we find what works or what's been proven or what's promising in other locations? And let's move it around and let's bring it to new locations. We might talk about this is education borrowing or lending? We may talk we can talk about it in a lot of different ways. But my question for the three of you all, and maybe this time I'll go middle out, I'll go Jim, and then Gabby and then Omar. What do you think is the role of best practices in teaching, education policy and teacher development?

WILLIAMS: I'm a question close to my heart. Seems to me, a bit of a long answer. I thought a little bit about this, but those practices suggest, activities or just actions. Things, someone, a teacher in this case should do. Typically they're decided externally, validated externally, and applied in a general way toward, people who shouldn't be doing them. And the problem with that, of course, is the paradox that the local situations are different, and local situations. A point I didn't make earlier, are include the institutional culture of the school, of the building, as well as of the school district and other units. But the, in the building culture can vary a lot from building to building. Anyway, rather than best practices, I try to think about best principals.

The best principals are. They don't exactly say what you should do. They suggest what principles you can use to guide deciding what to do. They open up the thinking, rather than form a sort of compliance model. Here's what to do. And let's do it to, getting people thinking about what it is that works and what it is that works, where and when, sort of in the context in which practice was, was originally used and so it allows, thinking and encourages agency as opposed to, adoption and, and, straight implementation. So, best practices become something not one should adopt so much as consider and learn from in the light of one's own experience and situation. The second point and then I'll stop is, a thinking about innovations. We often think about innovations as a, kind of like we think about machines. Once we get the innovation right, we can plug it in anywhere and it will work. And that's one way of thinking about it.

Again, that's an externally defined innovation. And there probably are some there are things that work sort of universally in medicine does not the efficacy of medication does not. Well, it may depend somewhat on context, but it's pretty close to context free education. You know, it's a different, different beast. And so innovation, in a sense, a common understanding of innovation is it's replicating the

machine or the technology that makes something work. It overlooks variations in the, invisible mindsets. And, another approach is to think about innovation not as something a think about the process of innovation as something that local people do, that professionals do, and they innovate based on their knowledge, their experience, their values and such, and can ideally adapt, develop it, set contexts, develop approaches that will work in that place. And so rather than replicating the innovation, the structure of the thing, how about trying doing some research on thinking about how to innovate the conditions, how to replicate the conditions under which teachers can, can, innovate. And to me, that seems like a fruitful but idealistic way of approaching.

ARENGE: I think, Brad. You're right.

OLSEN: Yeah, I think that, I think that's really helpful. And it maybe gets us to talk a little bit later about what it means to adapt and contextualize a set of principles or a core to an innovation, to a new location, which is innovative work in and of itself. I think that's really helpful. My clever middle out may have confused me a little bit. Is it Gabrielle? Are you going next?

QARGHA: Yeah.

ARENGE: Thanks. Yeah, I completely agree with them. With Jim's response on the idea of best principles or promising principles over, over best practices. And I thought maybe be helpful to provide a, a concrete example of what this could look like. So there's some research that I really, appreciate from Tanzania, where Jukes and colleagues, found that teachers preferred whole class, teaching activities and sort of, call responses to questions. And when probing this and kind of getting into the IPM underlying teachers practices, they found that teachers linked these practices, these collective practices, to social and cultural values in Tanzania, like togetherness and fairness and, minimizing public embarrassment. And so, in this context, perhaps using, maybe what's could be a best principle of like differentiation or targeted instruction.

That might be a little bit of dissonance there. If you're working to try and individually support students, how can you do that in a collective environment? And so that's, I think the authors did a really

interesting job proposing some potential ways to kind of do hybrid pedagogies or using this principle of how can you generate information about student understanding in an individualized way that still supports this, you know, respects the collective approach. And one tiny example they suggested is essentially, to still elicit whole class responses. But to have students use like thumbs up, thumbs down, thumbs to the side. And that provides individual information about students understanding about a particular question, but all at once, at the same time.

And so I think that's a really interesting way to think about how is this principle of providing individual, targeted feedback on student learning? How that could be possible in a space where, the kind of collective and engaging and learning together is still really valued. And so I think, yeah, invisible pedagogical mindsets, that is a tool that can help us, again, make these opportunities explicit, recognizing that there are real, social and cultural values underpinning these ways that teachers are working. How can we harness that, to integrate or maybe blend with some of the best principles or promising principles, as I've said, that may come from other contexts?

OLSEN: Great. Helpful. Omar.

QARGHA: Yeah, those are excellent, responses that I think what I can add to this conversation is usually when we talk about best practices, they've shown promise somewhere, and that promise is documented somehow. I think the question becomes and related to Gabby's response, it's best practices for what? I think, a lot of times when we talk about best practices, we don't ask the question of the purpose of the best practice. So, for example, if we're talking about pedagogical reform or pedagogical change, if a particular version of student centered pedagogy is being promoted for as a best practice, what is the end that that best practice goes towards? What's the purpose is that to improve human capital? Is it to improve thriving? Is it to improve, national identity? I think, part of the. Conversation about best practices.

There's definitely, value in that. But it's important for each context to first ask that question, what is this best practice meant to do? At the end of the day, I think that's a critical issue. Another issue that comes up is, related to a lot of the work that you do. It's about scaling.

It's, we usually apply best practices, because when you want to scale something in the educational space quickly and get the same impact. Again, I think a lot of the conversations and dialog that invisible pedagogical mindsets can bring into that convert into the discussion and decision making process is usually gleamed over. We don't talk about. If we expand this practice as is or with minor tweaks, what does it mean to culture? What is it? How is it responsive to local education ecosystem? What does it do to the ontological and epistemology? Epistemological understanding of how teaching takes place and how learning takes place? And another complexity that's introduced in this, especially in a lot of the global South environments, is that these best practices are usually promoted by donors, bilateral or multilateral donors.

And countries have this issue of power, when they are power and money, when they're trying to either take on best practices or push back against them. Usually these are. Either implicitly or sometimes even explicitly part of donor contracts. And these are best practices that we think are going to revolutionize your educational system. And you should take that on. That has a lot of power issues that has colonial roots. So I think these are some of the concerns that best practices brings into the, into the education transformation space and the invisible pedagogical mindsets that provides this room for that dialog to take place. Are these best practices, best practices for our context and how do we deal with them? And just to end there, I'm not saying best practices are there's not value in them. There's definitely value. And that it's contextualizing and trying to figure out how they apply to the individual contexts.

OLSEN: Great. I, I wish we had more time because there's so much I'd like to ask you all about, related to what you've said and some things to, to talk about. One of the things that crosses my mind as I'm thinking about what you've been saying, Omar, is certainly there is the question of best practices for what. And that does raise this notion about what are the purposes of education in any context. And that seems to be part of the invisible pedagogical mindset that needs to have a light shined on it and needs to be excavated, interrogated, and by some kind of a consensus, figure it out. The other question is for whom?

Best practices for whom? And I think that's an equity question. Perhaps you know which groups of students, which subpopulations, which, national histories are benefiting from a particular best practices and which ones are being marginalized. And maybe that's a question that we're not asking often enough. And then I think that your point, Omar at the end is by whom like who is actually doing this. And that's part of the need to examine where this is coming from. Are there inadvertent or intentional agendas behind the particular practices or programs or innovations that are being promoted as, as, as best practices? I mean, there's a whole continuum here. On the one side, we could get conspiratorial about what's going on.

On the other hand, we could say this is simply, a result of not having examined and contextualized, as Jim points out well enough, what works in one place and how it might work somewhere else. And so I think that that's really helpful. And as you point out, our Millions Learning Project has uncovered and examined a lot of some of these same ideas related to what it means to scale a promising innovation throughout whole systems. So there's a lot that we could talk about. However, in the interest of time, I want to move us to the final question. And I'm going to return to the original, sequence here and ask you first Gabby and then Jim, you second, and then, Omar, third. What role can collaborative research play in more contextualized and relevant pedagogical reforms and teaching practices? In other words, how does the concept of IMP. I'm sorry IPM, refocus the power of collaborative research? Gabby.

ARENGE: Thanks, Brad. I think collaborative research is an essential tool supporting locally relevant, pedagogic innovations and reforms. And I think it, has a real promise in bringing together a variety of stakeholders to draw out nuances that may exist in IPMs and remember that local context are not homogenous, and they have connections to the global, even in their locality. And that, inviting a variety of different perspectives into the same room. To start engaging in these questions and conversations is critically important to teasing out some of these differences, so that, again, may generate opportunities for relevant changes and contextualized approaches. I thought it might be helpful to provide maybe 1 or 2 examples of what collaborative research could actually look like, and just the ones that I've been personally a part of, because I can take on a lot of different formats.

And I think aspects of the research process can be quite murky. And so, the first one is actually a Brookings, initiative that I was a part of several years ago called the Real Time Scaling Labs. And there were several labs across it, I think six different countries. I was a part of a researcher in the Botswana lab, and, the lab was designed to support scaling up education innovation. And this was led by the Ministry of Education and a local NGO, Use Impact. And the lab came together, on a regular basis. It was really affected by COVID, but we did have a couple of in-person conversations with stakeholders, from senior policymakers down to teachers and regional directors. We had members of UNICEF, we had teachers from Zambia, this kind of really diverse, group of individuals coming together to, actually analyze and look at some student learning data and try and determine what might be some of the challenges in this context, what might be a relevant solution, to some of these challenges, we kind of centered around teaching at the right level, a particular pedagogic approach that's become quite, common in an international space.

And, what was really interesting in these early conversations specifically was that, the conversation started to highlight some of the IP and actually how local stakeholders and a number of different levels really saw the synergies between the sort of, Tal might be considered a best practice. They started to see actually, there's a real synergy. We, we think, and our pre-service training teachers are exposed to many of these principles and that by, incorporating this a pedagogic approach into, into our in-service training and, you know, school based supports is actually a way that will really fit with our local context. And so I think that's kind of an early stage collaborative research project that can, that shows a lot of different stakeholders coming together to kind of engage in, in analyzing what solutions might be relevant. And, and again, kind of drawing out some iPads in those discussions with very diverse stakeholders.

The second example I want to give is a much more recent one, smaller scale one. I've been working with an organization in Los Altos that supports teachers and primary schools to do coding lessons, with their students on a regular basis. And this organization, found that some teachers are doing lots of lessons. So, you know, they're getting 30 plus lessons in a year. Others are doing to use five. And they wanted to understand what's helping some teachers to do more and what's getting in the way of others. So we did some interviews with teachers. We kind of developed the protocol together.

And but the really exciting part of this was actually doing analysis together, and I was doing analysis with the organization that provides coaching and 1 to 1 supports to teachers. And what does it actually look like in practice? So we're taking excerpts of teacher interviews and kind of outlining them in really dynamic ways. We did this online, but I do think you can do it in person in kind of a low resource setting. Really taking a minute to engage deeply with the teacher voices, to leave comments, to collectively reflect. We had, you know, sticky notes and, to move things around. And this, I think, shows that, engaging in sort of this collaborative analysis. One, it made insights, possible that I alone as a researcher, would not be able to come to even with other researchers who may be familiar with the context.

I think it shows, too, that, non-researchers or individuals who wouldn't describe themselves as researchers can definitely be a part of the analytical process and, and provide tremendous value again, in pulling out some of the hidden aspects of IPM and may have gone I might not have seen in my analysis, that was only possible to encounter through conversations with those working in the organization and in conversation with teacher voices themselves. And so I could imagine doing this in person again, sort of printing out and really engaging deeply with the data that's there. That for me was a really educational experience. I think it's possible to, to use this kind of, synthesis session as a model to, to get into some of the weeds, beyond a sort of planning research and discussing what the outcomes are afterwards. But to have this really collaborative analysis approach was, was quite, impactful and led to some really relevant solutions.

OLSEN: Great, thank you. Jim?

WILLIAMS: Yes. Always takes a second to find the mic button. Those are wonderful examples. Well, that's really promising. That kind of. I'm not sure that's one kind of thing, but good examples of, really, well, would seem to be very effective ways of improving this. I guess, you know, research sort of depends on what you're looking for and how you understand knowledge and how do you understand, the, the role of the people you study in relation to that knowledge. And so, if we are thinking of teachers as active agents, then our research has to treat them in that way, of course. So much information, sources for mining of information.

Then, agents in helping us understand what it is, what the information is and what's important about it. And of course, we would all certainly agree with that. And so, I have two different ideas which I'll put out there. That might, I don't contribute or not, let's say. But one is that, there's a lot of space between, principles, child centered pedagogy and what teachers do in the classroom. And, there's, depending on teachers backgrounds and such, there's, maybe not a lot of background in doing that. So I think part of our job is to work with teachers to help flesh out the kind of the. The infrastructure. Between the principal and what they do, the infrastructure and the, scaffolding. And. So anyway, I think that that's. We need to discover how it is that, what it is teachers need to be able to translate. The other thing is, and, you know, rather abstract. The other thing is, well, two of the things.

One is, the practice in, in Japan, at least of lesson study in which a teacher, you know, gives a lesson to colleagues and they, critique it, they talk about it in a hopefully in a supporting, supportive kind of way. And that's really pretty effective in helping teachers to understand and improve their teaching. So I might nominate that as an idea that might work in some places. And then the third piece would be textbooks. We don't think of textbooks, in this context, a whole lot. The textbooks. Can passively reinforce the. Use of rote learning. Other things that other practices we don't consider particularly useful. But in fact, you know, textbooks can, the way they're organized can reduce the tendency to default to rote teaching. They can include content pedagogy that integrates knowledge, skills, attitudes, and values, rather than focusing only on, in a sense, content.

They can create opportunities for student and teacher agency. They can allow for, encourage new situations in which students are given space to apply their learning. So I think that that's, another venue and every, every classroom has a textbook. So that's it's a broad scale. And so exploring through research ways that textbooks can be organized to promote the, the good practices that we believe are true almost universally. To see how that can be done. And part of that involves, you know, an understanding of how textbooks are created, which understands the critique, which explains the curriculum development process, the role of syllabi, etc., etc.. In centralized or decentralized systems. So, long winded answer.

OLSEN: They're very helpful. It's a very illuminating answer. Thank you. And in just a second, I want to get back to some of these examples we're sharing. But first, I'd love to turn to you.

QARGHA: Yeah. Thank you. And, thank you, Gabby, for pointing out the real time scaling labs, which I had the honor of working with both you and Brad on, as a collaborative research, activity. So I think, to add to the conversation, I'll pull on my experience from my last position before joining Brookings. I work with the Ministry of Education in Afghanistan to try and transform education system there. And one of the things that came out from that experience was wearing this different hat from a policy perspective. And I think, the relevance of that to collaborative research is understanding what the role of research and evidence is and, and policy decision making. I think all too often we believe that evidence, should, that policy should be based on evidence.

And that is not the reality of how the world works. Education is a moral, social, ethical, multidimensional as well as a technical activity. And when we talk about evidence and research, we usually think about, our findings, leading that entirety of the conversation. Collaborative research, I believe, opens up this space for multiple voices to come in and talk about what is important to be studying and what kind of information is needed. And I think, by opening up that space, we hear the multiple voices that both, Jim and Gabby referred to. And we can use those multiple voices in many ways, depending on the context that could be complementary. It could be action research, it could be lesson based studies with the teacher. But branding those voices in which we, as the researchers, are not taking the banner and saying, well, we have the solutions that you're going to need. And it makes it a more of a, holistic community activity. The second area in which I think collaborative research adds to the conversation is, when we talked about best practices, there's also this idea of golden, the golden standard for research.

One type of research overtakes everything else. Nowadays. It's usually about randomized controlled trials, certainly randomized controlled trial trials, quasi experimental designs, regression analysis. All of these things have an incredible value. But there are many other ways of knowing and coming to evidence that would be more responsive to contexts than just one standard. I think collaborative research opens up spaces for mixed methods research, and figuring out which research strategy is

best for the policy solution that we're looking for. And, and I think to just end with, with the thought that opening up space for evidence that's locally made is incredibly important and collaborative research and the way that we're thinking about it and the research policy collaboratives, it should be sustainable. It should be something in which a local entity starts to looking at these questions from multiple perspectives and figuring out what is the best evidence that we can put into the environment that could help education systems transformation to transform for, for better, for the local context. And I'll end up that.

OLSEN: Great. Thanks. What I'd like to do now, first of all, I'm noticing shafts of light behind me coming from above. And I'd like to believe those are, illuminated slices from the important insights that you all shared as a panel. I want to, offer a couple of remarks and then open this up for questions. And again, to those of you all who are listening, please use the Q&A, option at the bottom of the screen and ask us some questions. We have a few already, but I'd love for some more. Before I go into the questions though, just very quickly, I want to offer a couple of observations based on what you all have just been talking about. One of them is the fact that teachers have their own grounded, user based perspectives from which researchers and reformers and policy makers can learn, and how important it is to tap into their knowledge. In other words, that that top doesn't only exert weight from top to bottom, it should exert weight from bottom to top.

And how can we create a dialectic where all the sides are learning from one another? I think that that may be sorely absent in many, policy contexts. I also want to point out related to that and just call it because it's true, the irony of us as international, policy folks talking about the power of local contexts and how important it is and will be for these kinds of conversations to extend to folks who are doing grounded local work and not only, allow us the opportunity to talk about the, the concept of localization and contextualization. The another thing that I want to mention, you know, Jim, you were talking about the space between principles and practices. And I think that's really useful. And I'm glad you brought that up, because one doesn't move always easily from principle to practices. It requires some intellectual pedagogical work of its own. And so there is a question about who is engaged in that work and who is going to do that work if we leave it to the teachers unsupported?

Maybe it's not going to go as well as we want. Maybe we want to make sure that that direction goes both ways, that the principles lead the practices, but also the practices can inform the principles. And so that we're continually creating a dialectic. You of you all offered some examples, collaborative teacher research. You mentioned Gabby, Jim, you talked about lesson study and textbooks as curricular and pedagogical supports. Those seem to be really good examples of how existing supports can close the gap between principles and practices. And yet there are also best practices that may, suffer from some of the same, a contextualized concerns that we've talked about already. Which brings me back to what Jim said a while ago.

The incredible importance of adapting and contextualizing best practices for local contexts, and the fact that that requires really knowing the local context and really engaging local community members and families and students and teachers as partners in this work, rather than passive recipients of this work. And then the final thing that, came up is this really important need, as you as you point out, are for context responsive research methods and methodologies and that that really requires a sea change, a way to look at what research is, what counts as evidence, who should be doing the research, where the results of the research get quote unquote published or shared. In other words, it requires really upending a toy top of its own. Because just like teaching is one of these toy tops, so is research. And what would it mean to think about that differently? I could imagine that our next webinar could be invisible researcher mindsets.

And what does it mean to do some of this same interrogation work for researchers and research around education in local contexts? Those are just a couple of remarks that I wanted to share, but I'd love now to go to some questions. And I have a couple. But again, I'm going to keep encouraging you all to go into the Q&A option and ask some questions. One thing that came up that I'd like to ask in any of the three of you can start. How about digital learning environments? This question came up that there are a lot of locations that are going digital in their classrooms or in schools, and this questioner is wondering, how can IPMS and collaborative research be used to ensure that digital approaches are successful in local contexts?

WILLIAMS: I must confess. So I'm going to start by confessing that I don't know a lot about how that can be done. But I think that.

OLSEN: And, Jim, let me let me just ask you, is that because you don't think you just don't have enough knowledge about it? Or do you think you're skeptical that it can work?

WILLIAMS: No. Not enough knowledge.

OLSEN: Okay.

WILLIAMS: So, just very quickly, I, there seems to be a lot of potential for individualization of certain learning materials depending on using AI and other techniques to, you know, use student responses to move to the next point, etc., etc.. And I'm thinking that something like that. For teachers could be very helpful, to base on the teacher and the student's responses. What's next? Do they get this concept? Not get it if they don't get it? What do you do? Just, kind of complex sort of individualization surely would be helpful. At least in the abstract.

OLSEN: Gabby, Omar, you want to weigh in on how this, concept of in invisible pedagogical mindsets might play out in the world of digital education?

QARGHA: Yeah. I, I have to preface with, what Jim said as well. I, I'm not a digital specialist, so I have limited knowledge of this, but, I, I think that building on Jim's point that on the one side, there's this, potential ability to customize, educational curriculum, educational programing for individuals in which, if invisible pedagogical mindsets is built into those algorithms, it could potentially help in some way. But I think that, stepping back and looking at program design, I think, looking at digital solutions as, as an intervention that we're trying to put and, and discussing how those interventions work within each of the local contexts. And I think a lot of the conversations about invisible pedagogical mindsets applies in the digital arena. But there's additional elements.

How do people view digital education, how digital education interacts with specific subjects? When we introduce our research policy collaboratives that were collaborative in, in Egypt is looking at, how Edtech and digitalization is interacting with Arabic teaching, which could be different than how it interacts, for example, with mathematics. So I think, the same concepts apply, but the areas in which invisible pedagogical mindsets, the culture, the ecosystem, the, the learning theories, impacts digitalization. I think there's this extra layer that has to be considered, and, and how we are, approaching it. So those are some just general thoughts.

OLSEN: Great. Gabby, would you like to take this on?

ARENGE: I just want to say that I'm also not a digital specialist and I am, so I don't feel I have very much more to add. But I guess this is less about. And that's pedagogical mindsets and more about just again, thinking about, the accessibility of technology and how, some of the, perhaps individualization might be adapted again for lower technologies, versus higher tech. And just again, thinking about sort of access and equity related to how technology is being used, as a part of that sort of contextualization process. But, nothing more to add from my side.

OLSEN: Great. Thanks. Okay. I, you know, I think that in a way, are you are referencing. And maybe you meant to reference, Lee Shulman's work on the different categories of pedagogical knowledge, and he came up with seven. And one of them is this notion that subject knowledge and pedagogical knowledge mediate each other. And so knowing pedagogy in terms of teaching language is different from pedagogy and in terms of teaching math or science. And then people have added to Shulman's list of knowledges to talk about technological pedagogical knowledge, to suggest that technology mediates how we think about pedagogy. But at the same time, pedagogy should mediate how we think about technology. And really understanding that becomes very important for teachers and for those who work with teachers.

I have another question that's come up that I think is a really important one is we've been talking about and we've been talking around the concept of teachers and the power of teachers, and we haven't we've indirectly got to this, but we directly haven't talked about pre-service teacher education

or teacher training and formal in-service teacher professional development. So the question here is how should we think about pre-service teacher training and in-service teacher professional development within the context of invisible pedagogical mindsets? I'll offer this to any of you.

QARGHA: I can start. And just kind of foreshadowing some of our work in, with, which is policy collaboratives that are actually doing the work, and in the local context, at least two of our RPCs are looking at both pre-service and in-service teacher training. And I think, in addition to what we have talked about in terms of, the different elements of invisible pedagogical mindsets that have an effect on the entire education. I think the pre-service and in-service teacher training is, intimately tied to the educational ecosystem because they either feed teachers into the system or they try to do, professional development while they are in the systems and often. The curriculum. The, requirements for pre-service teacher education is not in alignment with the syllabi and the curriculum.

The teachers are teaching, and sometimes the pre-service and the in-service teacher training programs are not aligned. So they could be sending mixed messages to the teacher in terms of what they're supposed to focus on. So I think one element that's really important in terms of, using invisible pedagogical mindsets and for pre-service and in-service teacher training, is looking at alignment. Is the ecosystem aligned and giving the same message, or that ecosystem is misaligned, giving multiple messages and then expecting that the teachers decipher those messages and then make, informed decisions? So, I think that alignment pieces is a critical piece.

OLSEN: Gabby, I know you've done some work around professional development. I wonder if you've got something to offer.

ARENGE: Thanks. Yeah. I think in in my work. So, a lot of my doctoral research is focused on looking at 15 professional learning programs, for in-service teachers in Southern Africa and trying to understand, how these programs are supporting teachers to try and adopt new pedagogic approaches. And what we found in the ones that were, particularly effective. Is that a PDS that engage in visible pedagogical mindsets that actually, again, sort of elicit them and treat them as sort of raw resources as, as an opportunity to, support teacher learning to, really become aware of their

own context. That's where we start to see some of the deeper, substantive change in practice, where it's not just sort of teachers trialing new, techniques, but really starting to see new pedagogic possibilities starting to maybe shifts how they're, the pedagogic paradigms that they're working with it and starting to see their students in new ways, recognizing that they might be able to actually do things, quite substantially different. And what this looks like in practice, in professional development, I think it's often around conversation and dialog.

It's about bringing, kind of an artifact from one's practice that could be, a video of one's practice, of a vignette of a teacher from another school and critically analyzing it and reflecting upon it in kind of an open way with peers. And that's, again, an opportunity to start to sort of, see things differently, to engage these various skills that you are talking about, grad sort of pedagogy, content knowledge, pedagogic knowledge, that, that, that really invisible pedagogical mindset I think is like a substance for learning, and can really support teachers learning, to think deeply about their own context, but also link it back to some of the theories that PDS might be bringing in. Another example of a professional development program that I looked at was, support of teachers to do, again, kind of research on their own context. They were interviewing each other.

They were interviewing students that were coming back and reflecting on that information together, and then trying to think about how can we take what we currently do and link it to some of our goals for ourselves? And what are some of the steps that we might take? And so again, I think treating, creating space not just to look at sort of techniques and professional development and sort of upskilling or training, but actually creating space to have conversations, to have substantive analytical conversation about, parts of practice and making these practices really explicit and observable. Can be a wonderful way to support teacher learning. And again, that I think is quite critical to actually moving to deeper pedagogic change.

OLSEN: Great. Thank you. Yeah.

WILLIAMS: Well, I think, my colleagues have summarized, I said things much better than I can. So maybe I'll be quiet on this one.

OLSEN: I know we only have two minutes, so this last question I'm just going to ask and maybe kind of offer a quick. I suggest that you all for a quick set of responses. And my question on this one, and this one comes from me. Are there current examples and models that really exist that are operationalizing this IPM concept, or is this something that's brand new that's never been done before? If there are places or programs that are actually doing it, could you just name them or tell us how we can learn more about them?

ARENGE: I can't sort of name a large scale one. I think I see this happening a lot in quite small scale research, where you have researchers working really closely with 1 to 2 schools, and that may be a limitation of this, is that the sort of depth of work is happening in a small scale way. I'd be really curious to know if others are doing this kind of in a bigger scale. I know that that's part of what the SPARKS project is trying to do, but, yeah, I see a lot of small, small scale examples.

QARGHA: And to just build on various response. I certainly don't think that this idea of focusing on, culture on. Educational ecosystems and, the underlayment. Of the, of the iceberg is something that's immune to SPARKS. I think there is, every day there's people thinking about this work, doing this work. But I think what the SPARKS project is adding to this conversation is providing, sort of an umbrella term that captures a lot of these activities that might be happening in different places. There are, certainly a lot of, researchers and academics and, and thought leaders that have worked on, on the influence of culture, on pedagogy, is in one example, from, from Africa, there's people in, in India and Mexico and in Egypt and all of these other places that have touched on these incredibly important issues.

So it's certainly not new, and that's not what we're claiming. What we're saying is that this idea of, naming this as invisible pedagogical mindset to provide an umbrella term helps us have that conversation better. And to just add, this idea of collaborative research is not new either. It's something that, the research policy practice, programs have done in the U.S., there's action research, participatory research. I think what we're, trying to add to the conversation in that regard is this kind of

bringing this idea of collaborative research to, education transformation and adding this, element of invisible pedagogical mindsets as a topical issue? That's how I see this as situate in the field.

OLSEN: Yeah. Thank you. I know we're out of time, but I'd be remiss if I didn't give Jim an opportunity to respond to this question. So I'd love to hear from you, Jim.

WILLIAMS: Okay, well, three quick points. I think the, I mean, echoing Gabby's, comment about, in a sense, pieces of this, being in many places, but I don't know, maybe I'm not aware. And maybe your research, at Brookings is heading toward this. I don't know if systemic kinds of efforts to think this way. And that and so thinking of school on the teacher, of course, but also the, the ministry and the policymakers and the parents and the kids. Kids may not like. But kids may be comfortable with a certain style of pedagogy, and they may not want to do something that involves different or more behavior. At least initially. And so, thinking about that is important. And, and so examples on a systemic scale.

And maybe again, that's what you all are doing. I hope so. The second point is, I think we need to think about the. Permission environment of teachers in the system. Do teachers feel they have the possibility of doing something different than what they feel like they're told? Do policymakers are they open to listening to it? Are researchers encouraging it? I think that, of course, we want the bottom to be agentized, the teachers. But I think we also need to open up to find ways to open up that space at higher levels of the system that have a great deal of particularly centralized systems, have a great deal of authority over teachers. And so I think we need to think about that a little bit as well. And I guess that's really it.

OLSEN: Right? Well, Dr. Gabrielle Arenge, thank you very much, Dr. Jim Williams, thank you very much. Dr. Omar Qargha, thank you very much. It's been an honor and a real privilege to get to moderate this really interesting and substantive conversation. And I want to thank you all. And I'd like to turn things over to Omar to close out our session. Thank you.

QARGHA: Thank you, Brad, for moderating and having this really, engaging conversation. And thank you to my fellow panelists for the discussions. I just want to take the last five minutes to talk about what to look forward in terms of for work that SPARKS, as Brad mentioned. And one of the last comments. We are a global North organization that is talking about contextualization, and our work is actually based in three countries, and they are the actual teams that are doing the work. We have a team in in Egypt, one in, Mexico and one in India that are all doing incredible work in starting this process of collaborative research on indivisible pedagogical mindsets. I'll give you a very short, overview of what each of the teams is working on in terms of the research.

And I will then, hopefully we'll get into other webinars that will be focused on each one of these teams, to provide more localized, contextualized, perspectives on, on the research that they're doing. So our team in Egypt is focusing on the education 2.0 policy that Egypt has, started for several years now. Specifically, they are looking at the impact of invisible pedagogical mindsets on in-service teacher professional development, as seen in teaching and learning Arabic. For grades four through nine, they will be working and six schools in three localities. The idea here again is to look at how, invisible pedagogical mindsets impacts this implementation of education 2.0, specifically with a focus on, Arabic teaching.

And they're doing a comparative study against, in these three sites to see how teachers, policymakers, students, community is, is interacting with this movement towards, this idea of introducing multidisciplinary approaches as well as well as Edtech into the education space and in Egypt and in India. Our team is working in four states, and their focus is on the national education policy and what this means for pedagogical reform pedagogy, pedagogical, and frameworks. Specifically, their focus is on the impact of invisible pedagogical mindsets on pre-service and in-service teacher education reforms and classroom practice.

Again, this team will be looking at this, through a comparative lens, and how this, these different pedagogical reforms are being transferred into pre-service and in-service, teacher education programs and how this impacts the implementation of pedagogical reforms, in the classroom. Last but not least, our team and Mexico is looking at the new Mexican schools initiative, which called for active

pedagogies and again, doing a comparative study to see how this, active pedagogy is being translated into classroom practice and, Mexico City, New Valley on and Yucatan and, and how these different actors within each of these localities are making sense of this, policy reform, that's focused on teaching pedagogical or changing pedagogical approaches that teachers have. Our hope is that, these individual country comparative studies will inform a larger comparative study across the three countries that can elucidate, some of the invisible pedagogical mindsets that are at play.

And, give us some insights into how educational reform can be contextualized through collaborative research. We hope that in the next, few months, we will be highlighting each of our teams and delving more deeply into their research, into their experiences, and through their insights, both on individual pedagogical mindsets as well as their experiences in terms of how collaborative research can inform policy reform, how collaborative research can be a complementary activity that brings in multiple voices. So, please look forward, to, to these webinars that will be happening in the next few months. We will be, sure to send you updates. And, once we have these scheduled. And thank you all for participating. This is, deep conversation, and we appreciate everyone's time for coming.

And I want to thank, all of my colleagues, and Rachel, who leads a lot of this work. Brad, who has been, a big thought partner the rest of this, senior colleagues and definitely, my fellow panelists and other reviewers that have helped us shape this, this concept, this is a work in progress. So, we hope you, you remain in touch. And please let us know if you have any questions, any ideas for improvement, any angles that we are missing that you think we need to be looking at. So thank you very much. I, appreciate your time and you have a good rest of your day.