

HGSE_IM_Session_01_Levy_FINAL-003_Low

[MUSIC PLAYING]

Hey, everyone. It's a very long room so we'll get used to that my name is Josh Bookin. I am the director of Instructional Support and Development at the Teaching and Learning Lab of HGSE. And I'm also the project lead of Instructional Moves. And before I hand things over to Dan and Junlei, who are two educators that I deeply admire as professionals and two people that I love dearly, I wanted to welcome you to this pre-EDIB forum IM live event.

I'm so excited to have you here with us today, making time, particularly on Valentine's Day. I see some nice flowers in the crowd. When I told the date to Junlei, he said, you might raise the ire of some significant others. So in my particular case, I invited my wife, who's here. And luckily, luckily for me, she's also an instructional coach. So collaborative professional learning is a shared love language.

So before I hand it over, I just wanted to go over a few logistics. As you have heard and you can see, we are filming this. There's going to be an edited video that's going to go on the Instructional Moves website so it can be of use to other folks. So a few requests around that process-- in a few minutes, once everyone has arrived and settled in, we're going to pass around sort of one for each session-- each section here, sorry-- this recording authorization form. So feel free to read the text if you'd like and then sign your name and print.

And for the filming experience, we have these really great tabletop mics, and they work really well on the table. And the only things that we ask is if you're going to speak, it's great to slide it over in front of you. Press the button once so that it turns from red to green. And then you don't have to do anything else until you're done speaking. You press it one more time to turn it from green back to red. So let's also help each other because as someone who can get flustered speaking in a large group, the person who just spoke may not be the person who best remembers to turn it off.

And then, we are also going to have a photographer who's going to join us. Oh, he is in the back there. So that's great. So excited to have him. He's here for the EDIB forum, and he's taking pictures as part of their work. And lastly, you should all have programs in front of you. There are presenter bios there. And so that's going to allow us to get right into the meat of the matter. And so without further ado, I'm going to turn it over to Junlei to get us started in earnest.

JUNLEI LI: Great. Thanks, Josh.

[APPLAUSE]

So welcome, everyone. I mean, just, it's an honor for the Graduate School of Education to host all of you. This is the kind of place for us to talk about teaching and learning, and in particular, about inclusion and belonging. I won't go through Dan's bio. You have them in front of you, but I just wanted to tell you. So after we had arranged for Josh and Dan and I to put the session together, I got an email from Dan with a very unusual request. It really should be a request that I make of Dan, but it was in reverse. Dan said, can I come to watch you teach? I'm the discussant here. So Dan and one of his doctoral TFs came, and they came-- my class is 9:00 Monday morning. And they were there before that. They sat through the whole discussion section for an hour and 15 minutes. And then they sat through the whole class.

And then I had the pleasure of debriefing with Dan and his TF. And what a gift that was for any teacher to have a caring and thoughtful person to be able to see your teaching and reflect it back to you. And there were-- I had to push Dan multiple times. I said, please, be open and offer me suggestions.

But Dan was able to see things that I intuitively do, but I don't see anymore. And then, Dan was able to see things that I intuitively ignore and doesn't think about it anymore, and the kind of suggestions that Dan offered was immediately actionable in my own teaching.

And I wanted to share that in part because I think one thing that-- it's not only about Dan but of so many teaching faculties and Fellows here is there's this deep commitment and love for teaching. One of the things I was particularly moved after we continued to debrief over email is that we-- both of us, we got the email from your TF who is just finishing a doctorate and is about to go out to be a teacher.

And the final email from your TF wasn't about the observation. It was just about the pleasure of being involved in this thoughtful conversation about teaching and how encouraged he was-- as he was about to enter the profession, how encouraged he was that in higher ed institutions, there are spaces and environments available for people who love and care about teaching. So for that, it's just an extra pleasure to have Dan here and to have that connection.

So I wanted to just set up the particular session that we do. So in my own work, I spend a lot of time not just looking at teaching but just looking at how human beings interact, particularly in classrooms or in settings with young children. And one of the things that I often find is that there are many things about human interactions that seem intuitive for most people-- the idea that if we meet a stranger, we like to connect with them, we like to have a sense of connection.

If we're in a conversation with someone, we intuitively want to make some space so that we're not talking the whole time. And any of us who have ever taught a young child to tie their shoes and button their coat, we know that big, complex things have to be broken down into smaller steps. So there's a lot of things about teaching and learning and the human interaction that's intuitive.

But there's this one particular thing that's not as intuitive, and it's this idea of inclusion and belonging, and in particular, about reaching out to those who may be the least able or the least ready to engage in any kind of a setting because most of us have this nature, like if you go to the dreaded family reunion, it's easier to talk to the person that's very easy to talk to. It's much harder, and it takes so much intention to create that space.

So even in our own field work, we create this little schematic to remind ourselves that any time you're in a room, whether it's a childcare center or whether it's a college classroom, you look for the dynamics of inclusion and belonging. We think about who are the people who, if you do nothing, they will be left out. It's not that you intentionally exclude them. It's just exclusion by default.

And then, you think about, OK, so what happens when someone in the room, whether it's a teacher or a student, to at least build an individual connection so that they feel that they're connected somewhere?

And then, what are the conditions, and what are the opportunities we can create so that no matter who you are in the class, no matter how ready you are to engage, or whether you're shy or not shy, somehow that they are part of the broader community? And I think that is the focus of today's demonstration and discussion. And Dan have thought so much about it. He has reflected so much even when he gave me the gift of being in my classroom. So Dan, I'm going to turn this to you.

[APPLAUSE]

DAN LEVY: So it's a real pleasure to be here. I'm very enthusiastic about sharing this presentation with you. I want to set a little bit the goals for this session because they might not be apparent if I just get started. So the first goal is for the next half hour or so, we're going to engage in a teaching demo about a subject that has nothing to do with inclusion and belonging. But it is to ground our conversations about inclusion and belonging.

So I want you to wear two hats today. The first one is as learners. You might not be that interested in the topic, but I'm hoping to engage you in real conversation about the topic. And then the second one is to think together what are things that we can do in our teaching to create more inclusive learning environments.

So that's the second hat that I want you to be wearing. As we are doing the demo, I want you to be thinking, what are things that are happening that lead to more inclusive learning environment? And what are things that are happening that maybe are missed opportunities to increase learning?

Before I start, I want to offer gratitude. There are many people in this room that I feel very grateful to, but five people today that I want to offer quick words of gratitude-- Josh Bookin for organizing so superbly this event and for having such a positive impact on the quality of my teaching, and frankly, on the quality of my life.

The second person that I want to thank is Junlei. I only met him three weeks ago, and I've already learned so much from him. And his generosity and kindness is something to behold. And I'm very much hoping that I can learn much more from you in the coming months. Victoria and Erin who help me day to day with my teaching and who have helped me for today--

And then a fifth person who's not here in this room is Richard Zeckhauser. He's a professor at the Kennedy School, one of my mentors there and who has influenced my teaching and my thinking about the world so much that I actually cannot think of a single slide that I'll present today that has not been in some way influenced by him. So those are five people that I want to thank.

All right, so what is this conversation about? So the title is-- so now we're in the teaching demo. So pretend you're learners, but remember your second hat. And the title is Thinking Analytically in an Uncertain World. And that's actually the title of a course that I taught for the first time this fall. And I'm hoping to organize this session around three ideas that I think can help us understand the world better and make smarter decisions. So let me--

And the three ideas are around these three things. One is recognizing uncertainty. The second one is thinking probabilistically about the world. And the third one is about making decisions given the first two. So let me jump right into them. So here's where we are. And where I want to begin is I asked you in the pre-session survey this question, to describe in two or three sentences a situation in your personal or professional life where you were 100% sure something would happen and did not. I just want to have a sense in the room. Can you raise your hand if you actually answered this question? I just want to have a sense of how much pre-- OK.

So for those of you who didn't answer this question I want you to be thinking about this. What is something that you were 100% sure that it would happen but didn't happen? And what I want to suggest, or I want to start with things that you actually said in the survey. So let me start, if I may, with someone who is in this room. Siri?

OK, so let's just wait for a few seconds for people to read and for you to compose yourself. And then I'm going to ask you a little bit about this event that you were so sure was going to happen. So can you tell us why you were so sure that this would happen?

SIRI CHILAZI: Sure. Thank you. Hi, everyone. I had to think a long time to answer this question because the first answer I typed was, "I can't think of anything." And I said, no, this is very bad. I have to come up with something. So I would say, realistically, I was 99% sure that this would happen. I knew that there was obviously a small chance that she wouldn't get elected. But it still was a shock because it wasn't the outcome that I was anticipating.

DAN LEVY: OK, OK. And were you looking at polls? Or what were you doing? What cemented your sense that this was almost inevitable?

SIRI CHILAZI: Yeah, I was following. I had been following the news very closely for months, looking at polls, listening to what all the pundits and the experts were saying. Not just polls, but they do prediction markets, and they look at past elections and what kind of the trends would suggest. I studied government here at Harvard in undergrad. So I knew some of the various different ways in which--

DAN LEVY: You actually have three Harvard degrees, if I counted.

SIRI CHILAZI: I do.

DAN LEVY: OK, yeah.

SIRI CHILAZI: But so it seemed like all the signs were pointing in the same direction.

DAN LEVY: OK, do you remember a website called 538? Did you ever look at it?

SIRI CHILAZI: I think at some point during the election period, I did, yes.

DAN LEVY: OK, I want to show you what this website showed. This is their last forecast the night before the election. Can you tell us what that says?

SIRI CHILAZI: It says that Hillary Clinton has a 71.4% chance of winning.

DAN LEVY: And yet you were shocked when you saw the outcome. And so one thing that I want to suggest is that when someone tells you that there's a 29% of something happening is that we shouldn't be that shocked if that something happens. And obviously, there are many reasons it sounds from your own work that you were shocked because you didn't like that outcome. But I think it characterizes us more generally.

And just to maybe fix this idea, if the weather forecast said that there's a 29% chance of rain, I wonder if you can raise your hand if you would actually bring an umbrella to your party. It looks like only a few of you. So maybe you don't mind getting wet. So the reason I think this example is so interesting is because your experience is so common, and frankly, so common among people who live here in Cambridge who were in a bubble thinking that the rest of the country looked the same.

So a thing that I want to plant in everyone's mind is that your initial instinct of saying, "I don't think I can feel 100% sure of anything" is the thing that I hope we all take with us. The world is much more uncertain than we think it is. And recognizing that is the first thing that we need to do to operate effectively in that world. So next time you see a forecast like this, maybe, maybe you'll recognize, all of us will recognize more uncertainty.

There were several of you who had answers that were more like Siri's first instinct, which is I cannot think of anything. So if I could leave you with a phrase to remember is the world is much more uncertain than we think. But I want to perhaps leave you with a more concrete way of saying it, which is what my colleague, Suzanne Cooper, said in the poll, which is "I'm never 100% sure of anything." And I think that's

a very healthy attitude to live with. We are very, very-- we should be very, very careful with being 100% certain of anything in the world.

All right, so I want to move to our second segment. And that segment-- by the way, just in case you're wondering, lots of you came up with things that you were 100% sure would happen. I'm going to just give you some examples. "I was absolutely sure I would get a job, but I didn't get it." Some of you were absolutely sure that you would not get admitted to Harvard, but you were. That, I think, is very common among our students.

"I was 100% sure that I would attend my friend's wedding, but it did not happen." "I really thought I would hate living with my in-laws, but they actually helped." "100% sure that I would continue my dance classes this fall, but that didn't happen." So 100% rarely happens.

All right, so given the world is more uncertain than we think it is, I want us to move to our second segment, which is to think probabilistically about the world. And I know that sounds like a big word, but I want to try to break it down for you. So thinking probabilistically about the world essentially involves thinking less often in binary terms. It's not that something will happen or not. It's a little bit more about likelihoods of things happening-- so allowing for more uncertainty in our beliefs about the world, allowing for the possibility, however remote, that some things will happen, even if we don't think they're very likely. So what this means is to think in terms of likelihoods of things happening. So instead of saying, I'm sure that Hillary will win, or I'm sure that this thing will happen, we sort of say, well, how likely do I think it is that this event will happen? And so let's get some practice. And so I want to show you a picture.

This is a trip that I did last summer. So I was driving on this road with my youngest daughter. She took the picture. I wasn't driving and taking the picture. And I asked her, what do you think is the likelihood that the driver in front of us will vote for Donald Trump in the 2024 presidential election? Literally, that's the question that I asked my daughter. I guess I'm not the typical dad. But this is what I asked. And we had a conversation about it.

So I want you to actually answer that question. And I'm going to give you a poll now for you to do it. So let me see how this is going to work. I'm going to put this here. And here's the poll. OK, so point your phone. And here's a picture in case you want to look at it. And you're going to do all of those questions in a minute. For now, just based on the picture, but thank you.

All right, so I'm going to show you the answers. And here's where we are. So first thing I want to acknowledge is that no one said 100%. The first segment of this-- the first segment of this presentation was successful. So I wonder if we could pick someone in one of the upper categories. Can you give us a sense?

Someone who said between 80% and 99.9%, can you give us a sense of why you think that way? Let me put the picture again here. I think I forgot to say something about my teaching. I don't ask rhetorical questions. Can someone? Someone who said between 60 and 80, why do you think so? Christina?

AUDIENCE: Because we read the book by the cover. I don't know what else to say.

DAN LEVY: OK, but what gives you a hint about this person?

AUDIENCE: The American car, It's the flag, American flag hanging off of it. It looks like they do manual labor. They live in the woods.

DAN LEVY: You have a whole story about this person, and you only saw this picture. All right, all right.

OK, so here's what I hope we can do that now, which is I want you to get together with one or two people

next to you and to essentially think about what questions you want to ask me about this picture that would help you refine this probability or this likelihood. Does that make sense?

So for the next two minutes, what questions do you want to ask? But I want to clarify, I had no personal knowledge of this driver, and I didn't stop him and ask him what his educational background was or anything like that. All you have to do is think about me just following this car on the road, OK? So please, go ahead. Try to think about what questions you would ask. And then we'll come back.

[SIDE CONVERSATION]

AUDIENCE: Yeah, so I was thinking about the location or state where they were driving.

AUDIENCE: Yeah, and I like your question of did Dan get to see the driver himself, like the person. What did they look like? How old were they? Were they wearing any hats or any facial hair? I don't know.

AUDIENCE: I was thinking about race, the racial background. And I was thinking about age as well, yeah. But even then, it might be a lot of stereotyping, too, right?

AUDIENCE: Well, it makes you wonder what was in the truck. Was he able to see what was in the truck? Is the truck a leisure vehicle, or is it a work truck? Maybe trying to get at, is this a person who is in the countryside for leisure, or do they live there, or if it's their work? I don't know.

AUDIENCE: I wonder were there are any other stickers on the truck, like on the front, because even assume that that person is a Trump voter, typically, there has to be more stickers because I'm from the South.

AUDIENCE: Yeah. So I wonder what else is on the truck.

AUDIENCE: The other thing about the truck is that it looks like it's in very good condition, very good repair.

AUDIENCE: Is that another vehicle in front of the truck? Is it [INAUDIBLE]

AUDIENCE: Oh, that's a great question. Yeah, that is a great question. So it's an antique, right?

AUDIENCE: Right, it could be an antique truck, exactly, which then maybe is an indication of class, the class of the person.

AUDIENCE: Yeah, [INAUDIBLE]

DAN LEVY: OK, so I'm open. Please ask questions. Yes?

AUDIENCE: What was the date? Oh, sorry.

DAN LEVY: The date?

AUDIENCE: What was the date of this?

DAN LEVY: The date was on July 4th weekend. OK, anyone else? Yes?

AUDIENCE: Was it a tow truck?

DAN LEVY: I don't know. You judge by the picture, but it looks like it is towing a car. Yes?

AUDIENCE: What's the location, like the state?

DAN LEVY: The location was a road trip that we took in the summer in the state of Vermont. Erica?

AUDIENCE: What state is on the license plate?

DAN LEVY: I don't know. I was trying to get closer. But let's assume for now it's a New England state. OK, anything else you want to ask about this picture? Yes? Well?

AUDIENCE: Is this an old Ford? Is this an old-timey Ford?

DAN LEVY: I don't know. All I have is this picture.

AUDIENCE: Did you pass the car at all?

DAN LEVY: No, no. I was too engaged with my daughter asking her all these questions. Carolyn, do you have a question?

AUDIENCE: I was just going to say, did you get a look at the driver?

DAN LEVY: No, no, I did not. Josh?

AUDIENCE: Are we asking about the Ford truck or the truck driving the Ford truck, the person voting?

DAN LEVY: The driver in front of us.

AUDIENCE: OK, so the person who's driving, got it.

DAN LEVY: OK. All right, so anyone had any thoughts besides the picture that affected the answer to the question, what is the likelihood that this person will vote for Donald Trump in the 2024 presidential election? [INAUDIBLE]

AUDIENCE: Well, Sarah and I had lots of questions about the demographics of the driver-- education level, income level, gender, race, et cetera. And then we thought, or we could just ask the driver rather than doing this probabilistically to get to that. Although, we were also wondering, is Trump actually going to be on the ballot in 2024? And that was, I think, the biggest consideration for us about whether he would actually run.

DAN LEVY: We don't know. And in fact, when I asked my daughter this question, Donald Trump hadn't even declared that he was going to be a nominee for the Republican Party. So OK, so now that you've thought about all these things, I'm going to put back-- so here it is, the initial vote. And in a second, I'm going to let you vote again. There's a little trash item, and you can vote. And we're going to watch live to see if any of your votes change.

So let's do that. Wow, that thing is moving a lot. OK, can anyone describe the change we just saw? Not a trick question, can you characterize what happened? Siri, you look like you want to tell us something.

SIRI CHILAZI: I think it looks overall like the likelihood decreased. So a lot of people moved from the high buckets like C, D, and E more towards A and B.

DAN LEVY: Great, great. And they did because you learned information that was helpful to do that. And thinking probabilistically about the world is literally what you just did now. You expressed some prior beliefs about the world based on an initial assessment, maybe a story we had in our head about who this driver was. And then we started learning things about the world. And we ended up changing our beliefs. And so that process, some people refer to it as Bayesian updating, which is we're just updating our beliefs with what we learn about the world. And it can be very helpful for our personal and professional decisions. And in fact, I would argue that not only it can be helpful, but that being aware of this process is actually useful in disciplining us to be able to be open to information.

Obviously, there are two possible concerns here. One is that we over update when we get information. Or the other one, which is perhaps more common, is when we under update, that if the information doesn't conform to our beliefs, we're just not going to change our beliefs enough.

So that if we think that Hillary Clinton should win, we hear about a poll in the state, and we don't like the results, we're not going to update our beliefs very much. But a lot of thinking and operating effectively in an uncertain world is precisely about our ability to change our beliefs with new information in the right manner and the right magnitude. And that's the art of thinking probabilistically.

OK, so I'm watching the clock. So let's move on to-- so just to illustrate, if a graph helps you, so you had prior beliefs about the world, that the probability that this was a Trump voter was X%. And then you got some new information that this was in Vermont, that it was the 4th of July weekend, and all the things that you learned. And now you updated your beliefs, and now the probability is different.

And I know this sounds like a technical thing, but that's pretty much what we all do. It's just being more aware of the process. And when I say beliefs, I don't necessarily mean beliefs in terms of probabilities. You might have a belief that, for example, if I ask you, do you think the population of Mongolia is greater than 5 million? Well, that's a fact that you can look up.

But I encourage you to think about questions like that by saying, hmm, I think yes, and I would place the likelihood of that to be 80%. And it's not like 80% means that there's an 80% chance that the population of Mongolia is greater than 5 million. It's that that's your belief. And then you update the beliefs. Maybe you learn something about Mongolia that tilts you one way or the other. By the way, it's less than 5 million in case you want to look it up.

OK, all right. So I want to move on to making decisions. And this is big picture. The world is more uncertain than we think. That was segment one or idea one. And our most important decisions are made under conditions of uncertainty. And decision analysis is a tool that helps us make decisions under uncertainty. And there's this thing called decision trees that are a key tool to do so.

Now, in the remaining five minutes or so, we're not going to learn how to do decision trees. But just to give you a flavor, if you went to your-- if you were to buy a new iPhone or Android phone and you were trying to decide whether to buy insurance or not, you would draw something that looks like this. And what I want you to see is that there's uncertainties. You don't buy insurance-- if you were sure you were not going to break your phone, you wouldn't buy insurance. But you're not sure, and you have to make the decision before you know whether you buy insurance or not.

And so I think what this means is that we often make decisions that we might end up on the wrong branch of the tree. So in this case, the wrong branch might be we buy insurance, and the phone doesn't break. And we feel we have wasted our money. Or perhaps worse, we do not buy insurance even though we think it's perfectly rational not to buy insurance, but our phone breaks. So we might end up on the wrong branch of the tree, but that does not necessarily mean that we made the wrong decision. And so that's the thing that I want to explore now for the remaining few minutes.

And to do that, this is a question that I asked you in the pre-survey, which is what was your best decision last year. Do you remember this question? Yeah, OK. So I want to maybe start with Eduardo. Can you tell us why you think this was your best decision last year?

EDUARDO: My language school, which I ran for about seven years, is located in Brazil, and I am now living in the US. And the currency was not helping with my income in this country. So that was a decision that I had to make. If I want to live here, I need to transition careers. And that was my decision.

DAN LEVY: And you think it was the best because?

EDUARDO: Yeah, so first, because I needed to transition to change careers, but also because I just fell in love with learning design in general after taking classes at [INAUDIBLE]. And I felt like this is something that's going to make me learn more and open new windows of opportunity. So that was more for my own personal and professional growth as well.

DAN LEVY: OK, could you imagine this decision not turning out so well as it seems like it did?

EDUARDO: Yeah, I do because I did experience a little bit of a delay in what-- I thought it was going to happen faster, and that I was going to be able to sell it quicker, and also, land a job that would match what I was expecting. And I did experience that little delay, but it was still the best decision because it did work at the end.

DAN LEVY: Great. So I want us to capture that phrase, "it was still the best decision because it worked at the end." And what I want to suggest is that we often think of the good decision as the decision that has a good outcome, and that part of making decisions effectively has to do with separating those two things, the quality of the decision and the quality of the outcome. And as human beings, we tend to conflate the two.

In fact, I asked you what percent-- I asked if you thought the decision had turned out well, the one that you put in the pre-class work. And 92% of you said that it had turned out well. And I think this idea that the quality of the decision is not the same thing as the quality of the outcome is one that's not very intuitive, but I think it really helps you understand the extent to which you can actually make better decisions by separating the two. And so I want to describe a little bit what I mean by this. Let me start here.

I want us to go through this matrix that basically posits that the quality of the outcome and the quality of the decisions-- I'm obviously simplifying here, bad versus good. And I was hoping that someone could help us fill in a word that comes to your mind when you think about each of these four quadrants. So can I get a volunteer to help us with, say, this quadrant right here, bad decision and bad outcome? How would you describe, Alison?

AUDIENCE: Maybe something like an impulse buy. You're at the grocery store, and you're really hungry, and they've got a bunch of candy there. It's on sale, and you just buy it and eat it.

DAN LEVY: So impulsive-- so you just gave us an example of a decision that goes like that. You just went, and you're at the grocery store, and you buy that thing that you know you shouldn't. But you just did, and then you feel awful after you eat it. OK.

Any other words that come to your mind on this? When I've asked this question in the past, some students say you deserved it. That seems like a little too rough, but that's kind of the thing that you might want to have in your mind. OK, how about this quadrant right here? What would you say about it? How would you describe? What would be one or two words that come to your mind? Mary, you want to tell us?

AUDIENCE: Sure, I was thinking rigorous and lucky, sort of a combination.

DAN LEVY: OK, OK, so rigorous and lucky. And what about this one then, good decision and bad outcome? What would you say to that one?

AUDIENCE: Rigorous and unlucky and risky.

DAN LEVY: OK, so maybe unlucky in the sense that you made a good decision, but it just turned out to be poor. OK, you're on a roll. Can we ask you for the last one?

AUDIENCE: Gosh, I keep just thinking group think or something of that nature where everything is telling you to do something. The trend's probably going in your way, but you didn't actually give good thought to it. That's not one word.

DAN LEVY: Daniela, you have a word?

AUDIENCE: I think that is the luckiest.

DAN LEVY: You're pretty lucky. You make a bad decision, but you ended up in a pretty good place. And I think if I could plant the seed in your mind that when you make a decision, you separate these two, I think you'll be able to make much better decisions.

So a good decision process will lead you to a good quality decision regardless of the outcome. So if you are about to buy a phone, and you make a rational decision not to buy insurance based on your own sense of the likelihood that your phone will break, it is perfectly possible that that decision was good of not buying insurance because you followed a good process even if you end up breaking your phone. You will not feel good about it, but these are two different things.

And just to cement this, I want to give you an example. So suppose two people, A and B, come from a long flight from overseas. And A slept well during the flight, but B could not sleep at all. And they rent a car upon arriving at the airport. And the question is, who should drive to the hotel, A or B? What do you think, not a trick question? A, all right.

So now, you learn that B drove and no accident occurred. Should you conclude that this was a good decision? And I would like to suggest that the answer is no. It was a poor decision. You just had a good outcome. Now, suppose the reverse had happened, that A had driven and that A had had an accident. Would you call that a bad decision? It was a good decision with a bad outcome.

And so conflating those two is a very common thing. And in fact, there is-- any of you are play poker? Sorry, I realize that's-- Thank you, Gino. So in poker, they call this resulting. So when you essentially conflate the two and you sort of say-- and this book, by the way, is written by Annie Duke, who's a famous former champion of poker, world champion of poker. And she describes this. It's a nice book if you're interested in this kind of thing. And so the basic idea-- in fact, she's the one that came up with this idea of asking people, what do you think was your best decision and sort of helping people realize that we often conflate the two.

All right, so I'm watching the clock, and I'm going to-- I think I'm going to stop here. Maybe I will just do one more thing if you allow me to, which is I'm going to ask you to write one or two things that you learned in this session that you would like to remember a month from now.

OK, so maybe in the interest of doing what we came here to do, which is to discuss inclusion and belonging and not to discuss resulting, can I invite Junlei to come here and lead us through the debrief? But you can all see what the answers are. So thank you. Junlei? Thank you.

[APPLAUSE]

This looks like a theater scene here. OK, you go.

JUNLEI LI: OK, so I wanted to leave most of the time for all of you to have a question. So in our pre-planning, I was given the time to ask one genuine question. And so the criteria for me for a genuine question is one I really want to know. And two, I didn't pre-plan it. It only came when I was listening to Dan teach. And three, I never told Dan what the question was ahead of time.

So you were talking about uncertainty. And I was watching. And I watched you navigate through your entire plan. The question I really wanted to know is, are you nervous about teaching? Are you nervous about teaching today? Are you nervous about teaching in general before you start?

DAN LEVY: Yes. Yes, and I think the day I stop being nervous about teaching is the day I should retire from teaching. I think the anticipation of teaching is something that I get nervous. It's not paralyzing, but I do feel nervous. My palms sweat before I start a class. And I think I'm an introvert by nature. So it's something that I've learned to manage. But I am nervous. I think I try to remember what I'm trying to achieve, and that calms my nerves. And I try to prepare. And that also calms my nerves.

JUNLEI LI: OK, thank you.

DAN LEVY: Thank you.

JUNLEI LI: So as we think about the theme of the class, so a few years ago, you taught me how to use Teacherly almost as the outside set of eyes for me to think about how I'm engaging students in the classroom in addition to whatever my intuitions are. So I just wonder for today's demonstration session, what is it that we might be able to learn from having the extra set of eyes through Teacherly as a tool?

DAN LEVY: So I think the best way I can maybe describe is-- well, maybe let me just pose a question to people here. So I know it's going to be hard for you to just tell me directly, but please do. Do you feel like this was an inclusive teaching session and that all the voices were welcome and represented? You probably are not going to tell me directly, but I want you to think about that. And I just want you to reflect on what sources of information you have to make that decision.

And all I can say is that over my years of teaching, I often return from the classroom with an impression of what happened in the room. And then when I see the data of what happens in the room, it just contradicts it. So right now, I have the feeling that I wasn't very good at engaging that side of the room because I was mostly here. And I happened to have picked people who sat in this side of the room when I presented. So at some point, I tried to compensate by going there, but I don't think I did that well enough. But other than that, I have no sense of whether people here felt included or not. And so the truth is that I don't know. If I went now and looked at Teacherly, I don't know what I would find. So maybe let's do that.

So Victoria has been recording who participated and who didn't, and I'm literally going to show you what the Teacherly data says. I'm a little bit nervous that it will not make it look very good, but here it is. This is the Teacherly dashboard. And here's what we found. You can judge from here that I managed to only engage 13% of the people in this room. It's a single session so it's hard. And I think the thing that I would note the most is these statistics. So as you can see, I wasn't equitable at all in this class. And I don't think I would have thought that that's what happened in this room. And so Suzanne?

AUDIENCE: Sorry. Dan, just a quick clarifying question? How much of the calling on people, what fraction of the calling on people had you predetermined based on responses versus in the moment?

DAN LEVY: Good question, I probably had-- well, in fact, we can look here. It looks like roughly 10 people spoke, and I probably had 3 that were pre-planned and 7 that became. And then, I know that my inequality measures were not that good because I called twice on Siri, and I asked you three times on the same question. So those had something to do with it.

And obviously, this data is only for a single session. So there's a lot of noise. It's only 40 minutes or so. But I would not have seen this coming. But maybe other people in the room have. But as a teacher, I would not have predicted this. And that's what led me to want to use the tool, whatever it is, Teacherly or anything else, to, I think, keep me really focused on what actually happened in the room as opposed to what I thought happened in the room.

And I don't want to convert this into a Teacherly commercial or anything like that. But Victoria, who is there, is our project manager. And so if you're interested in using Teacherly, please reach out to her after the conversation. But this is the kind of thing that I don't think we're very good at. I think most of us feel like we are very inclusive in our teaching or at least try to be. And we don't realize that these patterns emerge.

JUNLEI LI: I remember even in my own experience using it that the data surprised me in both directions, the kind of things that I was much more intentional than I thought I was, but then huge gaps in what I thought I was doing.

DAN LEVY: Yes, yes, yeah. And this is obviously only one snapshot of one session. But if you do it throughout the semester, you can actually correct for this. You can sort of be more deliberate. And I saw it in my own teaching in which, before I started, I was undercalling on people who identified as female students. And now I'm much more deliberate about that than I used to be.

JUNLEI LI: Well, we want to take this opportunity just to broaden the conversation, whether it's about Teacherly or just about the teaching demonstration itself or inclusivity and belonging in teaching as a whole. We can go to a poll, and then we would love to just leave, let's say, a minute or two for everyone to just have a chance to put their questions in.

And we do have a feature where you can upvote the questions that you're particularly interested in. But what we'd like to do is just to ask everyone just to spend the first, let's say, two minutes or so just to type your own question. And then we'll give everyone the cue to go ahead and upvote, that way we're not upvoting even as people are still thinking about their questions. Is that all right? So I'll give everyone the cue as to when we can vote, but let's start just by typing in the questions that you are particularly interested in.

OK, so at this point, I think most of you have the questions in. We can do the upvote process to pick the questions that you're particularly interested in. And then let's see what bubbles up to the top, and then we will proceed from there. I think we're good to go.

All right, so I'm going to start with the question that's on top. And we know that every time someone asks a question, there's often more thought behind what they can type in just about a minute. So let me just start with the top one. Do you ever cold call as a way to increase involvement?

And whoever asked that question, do you mind, just give us a little bit of a background as to why you asked that question because, of course, there's a lot of people who are interested in the question? We'd like to hear from you directly in terms of what's behind the question for you. And then we'll turn this to Dan. So do you ever cold call a question?

AUDIENCE: Yeah, I guess I was curious. I couldn't tell if you had cold called Mary or if she had half raised her hand, and then you were doing it. But I was curious, particularly as you were thinking about involving other sides of the room. And insofar as this was about inclusivity, I was just curious. When you were asking questions and saying this isn't rhetorical and then you were being met with silence, that was what was behind my question.

DAN LEVY: Yeah, so I think a cold call can be used to spread participation. And if you think about involving more students, that might be an effective way of doing it. I think my hesitation with cold calling comes from the fact that the people who are most hesitant to participate are the ones who are going to be generally most terrified of being cold called.

So I prefer to be more on the warm-calling side and perhaps give students a heads up that I'm going to call on them. But I think, obviously, there are trade-offs there in doing this. I don't tend to-- what I did with Mary is the closest that I would get to a cold call. I hope she wasn't too rattled by it.

Part of why I picked her was that even though I asked Eduardo about his decision, I had four more to pick from because I didn't know who was going to show up. And Mary was one. And so at some point, I thought I would go-- I might go and ask her a little bit. But then when I watched the clock, I said that I wouldn't do it. But maybe if I had been a little bit more deliberate about the geographic balance of the

room, I would have gone there. I didn't have anyone there that I had sort of pre-planned. But that might have been a better choice. Thank you.

JUNLEI LI: So the next question, I thought it was interesting. How do we balance inclusivity, which is just spreading out across more voices, versus, let's say, high quality, especially when, in this case, you don't know who the students are, but in the case there are students who you particularly know, they're actively engaged and thoughtful? Let me just turn to whoever asked that question to just give a little more context to the question.

DAN LEVY: Oh, that side of the room.

AUDIENCE: [INAUDIBLE] that it's me again.

DAN LEVY: We're reinforcing the inequalities in the classroom.

AUDIENCE: I saw that there's another question worded very similarly. I'm using Teacherly this semester for the second time. And so it starts halfway through the semester, certain students just start to develop a track record of always saying stuff that really advances the class discussion and other students maybe not so.

So after a few sessions, it's like, well, I want to include more voices, but I know that that person has their hand up for the 10th time, and they're probably going to say something really insightful that will advance the collective learning of the class. So I'd be curious as to both of your perspectives of how do you weigh those trade-offs of whom to call on in that scenario.

DAN LEVY: You want to start?

JUNLEI LI: I'll be happy to start. It's a struggle for us. And then, one, I guess, instructional move that we have tried over time is that we ask students to share reflections about ideas prior to the class. And then, we and the teaching team would go through them. And so we would plan fully to call those ideas that would advance the class, but also, call those people who haven't spoken much in class, but nevertheless, they had really high quality ideas that would be beneficial to the entire class.

DAN LEVY: Yeah, so I think the pre-class work, I mean, I know you probably don't typically show up for events like this where you're asked to do pre-class work, but the pre-class work does help you get a little bit of a sense of where those jewels might be in terms of where you want to go.

What I would say is what I tell students on the first day of class is that I want to create a welcoming and inclusive learning environment. And what that means is that I will sometimes see their hands up and not call on them. So I name it. And I say to them, I don't want you to be uncomfortable raising your hand, but I want you to be comfortable raising your hand and not being called on. So that at least takes care of that. And then in a regular class, if all the hands, that you have up are ones that you know have participated a lot, then I think you just sort of say-- I mean, the thing that I do most often is just say, I want to see more hands up. And that gives a little bit more of a choice. Or I want to see-- or I just say, anyone who hasn't participated today who wants to add anything because the hand that's always up, you might think that they might add something very valuable to the discussion. But for every one of those hands, there's a hand that's not up that could add something even better if you're patient enough.

So the next one we have is, how do you think about tracking inclusivity and participation beyond speaking? And now, I'm really interested in what comes after the dot, dot, dot because I thought there were actually a great deal of inclusivity. So where did that question come from? Very good.

AUDIENCE: Yeah, so once you get called on, then you feel more comfortable. Yeah, so the question is I thought there was a great deal of inclusivity not in speaking, but there were pairs, and there were polls,

and ways for everyone to be active in some way. But that's a perception. And so you had the Teacherly as a way to get over the perception of what you thought was happening for those speaking. And I wonder if there's any way that you track on Teacherly or otherwise to think about inclusivity in participation that is not just speaking aloud.

DAN LEVY: Yeah, so I think as we think about inclusivity, I encourage everyone to think about not just what happened from minute one of the class but what happened even before the class. So for example, what are things that Josh did to set up this event that lead to a more inclusive learning environment? You might have realized that you all have name placards in front of you. You also have name cards that those of you who are staying at the reception sort of can wear. So all those things are before you even step into the actual conversation.

In terms of recording participation other than speaking, that can be done. But I was deliberate in trying to create, not just for inclusivity purposes but for learning effectiveness purposes, many occasions in which all of you were asked to do something to engage with the learning. And that, I think, is valuable-- the pairing, the fact that you were voting, the fact that you were-- even if you look at the first slide, the last sort of step in the first slide was say hi to your neighbor.

Those are small things that hopefully lead to an environment that's more conducive to everyone feeling welcome to participate even if not everyone participates because what you're trying to create is that, everyone feeling welcome. There's no way that in the course of 40 minutes all voices in this room would have been heard.

JUNLEI LI: I'm going to try to will the question in that direction so I'm going to walk over there. So beyond speaking, and so this is a very closely related kind of a question. What are the broader indicators, whether it's from Teacherly or from your intuition or from student feedback, what are the broader set of indicators to you about inclusivity and belonging in the class? Who asked that question? There you go, one person from that side of the room. We did not plan this.

AUDIENCE: You did will. In fact, I actually felt bad. But yeah, I have been in both of your classes, and they are pretty magical places. And I'm wondering if you could start to name and-- what does it feel like? What are some indicators? Is it the warmth in the room, when people show up, sort of-- what is it that are feedback or manifestations that you've gotten the culture of inclusivity and belonging that you're hoping for? So I'm just-- I'd just love to hear you either of you two think about that.

DAN LEVY: Junlei?

JUNLEI LI: No, you start.

DAN LEVY: I think what I would say is that it's very easy to fool yourself into thinking that you have achieved that by looking at signals like, do people feel comfortable? Is there laughter in the room? Is there a sense of people being able to say things even if they are-- are people able and willing to admit when they don't know something? Are they open to just saying, sorry, I didn't quite get this. Can you clarify?

But even those things don't capture someone who might be in the room who might feel totally excluded. And so I think those are harder to do. And for those, what I try to do is use Teacherly to tell me, OK, who hasn't participated? And let me reach out and see whether there's anything that I could do to help make that happen. And sometimes, it's like-- most of the time, when I write, the reaction that I get is one that's very welcoming. Oh, thank you for noticing, and I would be glad to do it next time.

And I guess I have to share this story because, to me, it was so indicative of something that could happen in the room that you don't associate with inclusion and belonging. A few years ago, I had a class in which, based on the pre-class work-- I did what we did here, which is on the side screen-- I put a quote, and I invited that student to comment on the quote. And this student stood up and spoke about the quote, but he stuttered. And I went by-- I went about my day without making a big deal of the fact that this student had spoken about his sort of particular comment.

A few months later in a follow-up course taught by a colleague of mine, this colleague of mine says, Dan, I just want to tell you that this student told me that when he participated in your class, it was the first time in his life, elementary, secondary, high school, and college, that he had ever said a word publicly in a classroom. And so I didn't know that. I didn't see that. Of course, I felt very nice about it, but those are things that we don't know. I mean, I only ended up knowing because of that.

But the thing that was most moving to me about that story is that the student then recounted that after that class, he felt more comfortable participating in other classes. And so how do we know that that happened? I don't know. I don't really know. But I worry not about those examples. I worry about the examples of people who are in the room and for some reason never feel welcome.

JUNLEI LI: I was just thinking that sometimes when we think about indicators, we immediately think about the whole. And I know, for me, sometimes, I feel like I learn a lot from the indicator of just one person, that a student would come and talk about a story, and it touches me, and it reminds me about what this work about inclusivity and belonging actually means beyond data, charts, and so on.

And so as you were talking, it reminded me of this one story just in the fall. I had an office hour about six weeks into the class, and there was this student who was from Southeast Asia. Her English was very, very clear but had a very strong accent. So she came into the office hour. And she reminded me. She said, in the class, you always talked about how you were from China and English was your second language, and you joke about it.

And she said, it was just so nice to hear you talk about that over and over again. And she said that helped her to feel like even though she had a strong accent, that she can stay and she can teach and she can get across. And it never occurred to me because it was just a reflexive, kind of self-deprecating joke that I seem to make as an instructor just to make everyone feel comfortable whatever countries they're from. But anyhow, right? And that doesn't mean that that particular comment had impact on any more than one person, but those indicators at least gave me a sense that it had an impact on at least one. And at least in human development science, we actually think a lot about at least one. What does it mean for someone to have at least one person in their own environment that they can look to that they identify with? So anyway, at least one is probably my indicator.

Let me go to the next one. So how do we encourage students who might be quiet or BIPOC students to participate to speak up when they don't self-select, when they don't raise their hand to speak up? That question, where is it?

AUDIENCE: That was by Marina over here, but she had to step out, unfortunately.

JUNLEI LI: All right, great. Dan?

DAN LEVY: I think you already partly answered that question, which is that you looked at their pre-class work and maybe reached out to them before class. I am struck by how much more welcoming people are when you warn them before class than doing a cold call. But I know other people feel very strongly that

cold call is an important pedagogic approach to get students to prepare for class. I don't want to dismiss that.

But the idea of being able to reach out to them outside of class, before class, and nudge them to do it, I think it's a relatively easy thing to do, and at least in my experience, generally works. People do want to participate. People do appreciate feeling noticed that they haven't spoken. And you do sometimes get people who say, I don't feel comfortable because English is my second language. And then you work with them to have them participate. So I think you should abandon the poll and just ask that side of the room for a question.

JUNLEI LI: Brilliant idea. So I'm going to start from this side. Any of the questions that you shared earlier? Maria?

AUDIENCE: It happens to be the next question, I think, down on the poll. But I asked a related one. There was a lot of inclusivity by some of the anonymous quotes that we saw on the slides or the feeling of having contributed even if not speaking up. Do you see a world in which you would want to count or measure that as an indicator of inclusivity?

DAN LEVY: Yeah, so those quotes, I think, are these ones here. Yeah, so those were at least seeking to have more voices represented in the room knowing full well that in the space of 40 minutes that I had available I wasn't going to bring in all the voices. They also happen to be quotes that I wouldn't have felt very comfortable attributing to someone because I didn't get the feeling that they might want to share that publicly. So for example, I don't want to reveal anyone's relationship with their in-laws publicly in front of everyone.

But the goal was exactly what you said, which is I heard what you were describing. And so I don't know that-- so the class that I happen to observe from Junlei was the class in which he examined the measurement, how you measure what's happening in the classroom.

And I was reflecting on how much obviously Teacherly helps you on some quantitative measures but how much in an obsession to measure things, we might actually miss other ways in which we might become more inclusive. So I don't think I would want to say, oh, I put six quotes on the screen so let me check off these people as having contributed.

It also-- I mean, it also, I think, points to the tension that came from your question about if that's what we're doing, then-- I mean, we're in the business of advancing learning. And so I don't want to feel like I'm just putting stuff there so I could check off the inclusivity. But I did want people-- this slide was produced with the purpose of everyone-- just having a group of people in the room feeling, oh, this person actually read. It didn't go to some black hole what I said.

JUNLEI LI: So I think we have room for one last question. I'm going to just plant myself right in the middle of this section.

DAN LEVY: Neutral, neutral.

JUNLEI LI: That's right. We'll get one last question from this section. Yes, please, Cynthia?

AUDIENCE: I would say inclusivity is one thing. Belonging is something else. And so I think there's been a lot of emphasis on measuring inclusivity. But what tools do we have at our disposal? How do we engage in a sense of belonging because that moves from being comfortable to moving into brave space making, et cetera for students?

DAN LEVY: Yeah, I think it's an important question. I don't know that I have answers to it. What I would say is that when a group of students comes together, there are already feelings of inclusivity and

belonging or lack thereof that are already there. And so part of your job as an educator is to try to in some way redress some of the imbalances that are naturally occurring in the room.

I think each of us tries to do that in a different way. I do think that people being OK with saying that they don't know, that they don't understand. I think to me one of the-- I teach quantitative courses, and in some of the questions that I ask, there are right and wrong answers.

And I think a measure to me of a healthy I don't know if you want to call this belonging but a healthy sense of community in the classroom is that people feel comfortable making mistakes in public, in front of others. And so if that happens-- I mean, this maybe goes back to Josh's question as well-- I feel like that's at least one indicator of belonging.

But it is an important question. I do think that we're overly focused on inclusivity and not enough on belonging. But creating an environment where people feel like, yes, I'm part of this community in a way that is not just like someone checking off in Teacherly is important.

[MUSIC PLAYING]

JOSH BOOKIN: OK, well, round of applause for Dan and Junlei.

DAN LEVY: Thank you.