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[00:00:26] **Speaker 1** Cordial. Welcome to InFocus.

[00:00:27] **Speaker 2** Well, thank you for having me.

[00:00:28] **Speaker 1** I really appreciate you being here. So we know you're in education. So here we are in the. Wisconsin Historical Society building, a place of learning, a place of education. Any vibe you get coming into this space. Not necessarily the auditorium space, but like, you know that the building itself.

[00:00:46] **Speaker 3** One of the first things someone told me about this.

[00:00:48] **Speaker 2** Space is when I first.

[00:00:50] **Speaker 3** Came on campus. I'm new.

[00:00:51] **Speaker 2** To campus. When I first came on campus. And you have to go to the Wisconsin Historical Society, you got to go to see the reading room. And they were right. So for me, it's.

[00:01:00] **Speaker 3** This awesome place of sort of the learning.

[00:01:02] **Speaker 2** And scholarship. And it's been here.

[00:01:03] **Speaker 3** Really long time, so it's pretty cool.

[00:01:05] **Speaker 1** Is it a space that you find yourself, visiting periodically still? Now that you're in your professional.

[00:01:11] **Speaker 3** No, I mostly am in my office and on zoom, like so many people. But but.

[00:01:16] **Speaker 2** Occasionally I stop through and just sit and do.

[00:01:18] **Speaker 3** A quick few emails and keep going. Yeah.

[00:01:21] **Speaker 1** And now you and you work for the Wisconsin Center for education and, research. Give us a sense of what you guys do over there.

[00:01:27] **Speaker 2** So WCR, which we finally refer to the Wisconsin Center for Education Research as is an externally funded research center here at the university. So it goes UW, the School of Education, and WCR. So there are, roughly speaking.

[00:01:40] **Speaker 3** 600 researchers.

[00:01:42] **Speaker 2** Who are students, faculty members, academic staff, and all supportive people who try to get external money to do good things in the world around research, evaluation and development. So there's lots of projects, everything from early childhood kinds of things, all the way to studying how to help, young people of color navigate getting their PhDs, mentoring, those kinds of things. So huge range, all research, all education, good stuff.

[00:02:10] **Speaker 1** Yeah, I love getting people to kind of, give us a sense of, the state of things in their, in their field. What do you think, in terms of the state of education right now, maybe even from a teacher perspective?

[00:02:24] **Speaker 2** Yeah.

[00:02:24] **Speaker 1** So forth.

[00:02:25] **Speaker 2** Well, I mean, you know, better than anyone. And then, it has been a rough go with Covid for everyone at the university level, but also at the K-12 level. So on the one hand, we kind of think about Covid as over, right? We're not wearing masks as much as we used to, and schools are in session. But in my world, researchers who are working with school districts and with higher education institutions, we're still totally dealing with Covid. To tell you honestly, we're dealing with young people with mental health issues. We're dealing with grown ups, with mental health issues. We're dealing with, you know, big gaps in knowledge that occurred when kids were home from school. So things are not yet easy. Not that they were easy before Covid, but I think the other thing is, it's hard to remember that the world is moving on, but there are still these things that are lingering for all of us to be paying attention to and trying to deal with.

[00:03:19] **Speaker 1** So what have we learned in terms of, how to best teach in this environment? Like how do we get education to where it was prior to Covid?

[00:03:28] **Speaker 2** And then there was a recent New York Times article that profiled a study that was done. It was collaboration, I think, between Harvard, Ayer, American Institutes of Research and and WEAA, which is a company. I think they're not for profit. That creates what we call formative assessment. So just sort of short term regular assessments that are supposed to help teachers in the K-12 environment address what their students are, where they are, and where they need to go. And that report showed, that Covid, the longer schools were closed, the worse it was for young people. Of course, hindsight is 2020. People were doing the best they could with with the information that they had. So the federal government saw some of those findings very early on, like as early as the fall of 2020 and early 2021. When we all went home in March, you know, sort of K-12 schools went home in March in many places of 2020, and they immediately started to try to get funds to states to deal with, that situation. So a lot of that has looked like high impact tutoring. We see some movement on that. So long term high impact tutoring. But there's been some hiccups, I would say along the way, we do know that the online learning for the average child is not useful. You can imagine young people might be more interested in playing a game off to the side versus paying attention to their zoom call. And it's hard for a lot of kids without that interaction, without the facial cues. All that said, for some kids, the pandemic and being away, I've heard stories, individual stories where it's been really good for a child, where they were finally getting the attention that maybe they needed or hadn't gotten. So I don't think the news, was awful for every child in the country. But overwhelmingly, the conversation in the research community is, what are we doing? Now to remedy this situation, there are big learning losses that will affect this whole generation of kids, not dissimilar from the 2008, recession did. And, you know, we know that that has impacted those young people.

[00:05:33] **Speaker 1** Yeah. I was curious to know if there are any aspects of remote, teaching, that work well or that may stick around. Now that things are more normal than they were when this all started. Like, are there any pieces of that there? Go stick around.

[00:05:50] **Speaker 3** Well, we've seen some things stick.

[00:05:52] **Speaker 2** So for example, when schools have snow days and things like that, some school districts have chosen to like, okay, everybody has zoom on their computers. We've got 1 to 1 computing in many places. Not all places, not all kids. But then we can say, okay, take your computer some and we're going to do some things remotely so that in some that that part seems to have stuck in certain places. I think some of the individualization has stuck, like here in Madison Public Schools, when they've had maybe not enough teachers to teach, let's say a gifted class or a class that's meant to help young people who are a little further behind. They've been able to have that teacher be centrally located and teach kids across the district. So some of that, has stuck, I think, and some of the like getting access to really good, like, let's say an AP course where that might have been done in a, you know, somebody had to drive or they sent a bus to go pick up a few children from one district and bus them to another. That can all be done remotely by now. So I think that technology, we're more fluid with that. And I think that has helped. And I think one other thing is teachers all of a sudden were catapulted into needing to be able to learn, learn to use these learning management system. So putting all their files online, the course assignments, those kinds of things. And so for older students in particular, that stuff seems to have really stuck.

[00:07:04] **Speaker 1** Yeah.

[00:07:05] **Speaker 2** Which is much more like university, you know, when they go to college or something.

[00:07:08] **Speaker 3** Yeah.

[00:07:09] **Speaker 1** And I know part of your mission, you know, is to kind of deal with, you know, the complex elements of teaching him. I read that, when I was looking over some of some of the, the publishing on your website. What kind of things are we talking about? We talk about complex issues in teaching.

[00:07:27] **Speaker 2** So, you know this. You then a student, let's pretend there's 25 kids in front of you. It can be ten year olds. They each have.

[00:07:36] **Speaker 1** Been a substitute teacher. I've been there at the. Yes.

[00:07:40] **Speaker 3** That's a relaxing job. Oh.

[00:07:42] **Speaker 1** Very relaxing.

[00:07:44] **Speaker 3** I think kids are so good to the subs, right?

[00:07:47] **Speaker 1** No, they treat us like the real, the real thing. I just think of it as being like, you know, in professional wrestling, they have the referee, right? You know, he's counting. He's doing this until the person goes, nobody listens to that referee. Nope.

[00:07:59] **Speaker 3** That's right. And they know you're not going to be there tomorrow. So it's like whatever.

[00:08:03] **Speaker 1** But you know, most of the time I am there tomorrow because when I go there they know that I can control that classroom and they bring me back in. Once I get the trust of those kids, I learned that they do.

[00:08:14] **Speaker 2** They listen. They totally.

[00:08:16] **Speaker 1** Will. And I also learned, too, that a lot of the times, whatever control I did have in that classroom was kind of based on how much control the teacher who rows that classroom that.

[00:08:27] **Speaker 2** They had, what norms were in place, what sort of routines, like we sit down.

[00:08:32] **Speaker 3** When we come in and we open our.

[00:08:33] **Speaker 1** Book. Yeah. And I'm sorry that I'm you're giving me flashbacks to my substitute teaching days, but yeah, that brought back memories there.

[00:08:40] **Speaker 3** Okay. Well, so at any rate, the substitute teachers face this and long term teachers face as 225 different kids are in 25 different places. Of course, there are patterns in.

[00:08:52] **Speaker 2** Where they are like, let's say you're teaching science or you're teaching journalism, right? But you.

[00:08:56] **Speaker 3** Have to figure out.

[00:08:57] **Speaker 2** I want them.

[00:08:57] **Speaker 3** To move over here.

[00:08:59] **Speaker 2** To this goal. I want them to understand, for example, how the media shapes society. That's a big goal. And the question for you as a teacher is, how do you get 25 different.

[00:09:08] **Speaker 3** Humans there.

[00:09:09] **Speaker 2** Given where they are? Develop those relationships. So when we study teaching, we try to measure, I think, three big aspects of the complexity. One is the relationship between teachers and kids and kids and kids, because those relationships matter a lot to for learning, right. If I'm not safe and then if I'm worried this happens, especially at certain grade levels, it's I'm worried my friend next to me is going to make fun of me. That's going to be much harder for me to learn in that classroom, right? I won't take risks, right? No, learning requires risks. So we pay attention to relationships, and we try to understand the complexities there. And those intersect with the management things you were talking about. What do we do when we come in? How how do we get called on? Do we raise our hands? Do we just speak out all these like routines that are about classroom organization and then we pay attention to instruction so on that how to get them to learn the role of the media. So what topics do you introduce for second and third? What ways do you engage them? So those things all intersect with one another in teaching. They're confounded with one another. So we can't pull just one apart and say, oh, only relationships matter or oh, only classroom discipline matters. We know that those things are related to one another, like you said, even in your little story. And so figuring out how to measure these dramatic.

[00:10:21] **Speaker 3** Yes. It's your traumatic experience being a substitute. But but.

[00:10:25] **Speaker 2** Yeah. So those are some of the complex things we try to measure, both with human eyes and then with some other ways we can ask students what they perceive. And students, older students are very good at telling you what they notice. They know when teachers have high expectations of them and they tell you.

[00:10:39] **Speaker 1** And they respond to that, well.

[00:10:41] **Speaker 2** You know, the best you got was a former high school teacher. And I'm the mother of three sons. Kids know a lot. We don't give them credit for for knowing as much as they know and paying attention. And on the one hand, they may like, you know who.

[00:10:55] **Speaker 3** They can be and do the why this.

[00:10:58] **Speaker 2** Way. On the other hand, they actually realize what achievement looks like in the world. They know the people that they respect in the world, and they know that by doing nothing, they're not going to achieve those things. So. So yes, I've taught rural kids in the South. I've taught kids here like, yes, they want to be held to high expectations and supported to meet those expectations.

[00:11:20] **Speaker 1** You know, I come from a family of teachers. My mom was a teacher taught here in Madison for, I think almost 40 years in. And I saw the Iron Fist and my friends, who had her in class, they saw that Iron Fist, you know, and I, you know, and I think that's probably instilled in me in terms of, the expectations I have. And I, you know, I, I actually went to the same high school. She taught it at East. And I remember her getting into it with one of the students in the student called her something that we can't see on PBS.

[00:11:53] **Speaker 3** Okay.

[00:11:54] **Speaker 1** And, and back in those days, you know, you could probably get away with this, but she opened the door and said the same thing back to him, you know, and she would never let let those kids control that classroom, you know, and, and I know things are a lot different now and things are just on a different kind of a way. But it was certainly a learning experience, you know, for me.

[00:12:13] **Speaker 2** But I think in your mom's case and I would say in my case as a classroom teacher and maybe in your substitute teaching days, too, kids actually need us to be in charge.

[00:12:21] **Speaker 3** They need.

[00:12:22] **Speaker 1** So they.

[00:12:23] **Speaker 2** Need grown ups to be grown.

[00:12:24] **Speaker 1** Ups that think so.

[00:12:25] **Speaker 2** Period. So, you know, at home, that isn't to say they need to have an iron fist or there's lots of ways to accomplish goals. It's not that there's not one way, but we there actually need to be grownups in charge in buildings and in charge of classrooms.

[00:12:38] **Speaker 1** Yeah, I get the sense they mirror what they see and what what's expected of them. You know, even I think even I'm probably guilty as a, as a teen of, you know, as I say, you give them an inch and they take a mile sort of thing.

[00:12:52] **Speaker 2** It's the nature of being a young person, right? Yeah.

[00:12:55] **Speaker 1** Who do you think? Do we. I and we chatted about this a little bit when you were on the, black and white series with this, would I forget the year now? Because the time's running, but, who do I who do we blame for our failed, failed failures in the classroom? In terms of, you know, how the students are doing and how the, you know, teachers may not be able to cope and those sorts of things.

[00:13:18] **Speaker 2** You know, I suppose the answer depends on who's answering the question is here. Your answer might be different than mine, might be different than my 81 year old. Father's right. But and I think one of the hard things about being a teacher, I still work with teachers. We're socially friends with teachers. One of our closest family friends is a is a principal of an elementary school. And I think what I would say is all of us are to blame for presuming that schools and teachers are magic. On the one hand, they can be the best of us, right? They can ameliorate problems that exist in society. They can help fill gaps that maybe a young person doesn't have at home, like a computer or something like that. They can help us learn to read, which opens whole worlds right to young people, imaginations, things they can't imagine from their current circumstances. But on the other hand, their human institutions and teachers are not magicians, and they have them, you know, six hours a day when you figure in bathroom breaks and lunch and recess and they are not magicians. And so if we send them to school hungry and, you know, maybe not paid attention to in certain ways or treasured and cherished the way children should be treasures and cherished, right? Seen as whole people, we can't we can't fix that. We can't expect schools to fix that. So one of the hard things, I think, is pretending that there is one person to blame the schools education bill on all of us, and, and, and unless we understand that, I think as adults, as citizens, we're going to keep just wanting to point fingers. That is not going to solve the problem. It will not fix things that we want to fix.

[00:14:56] **Speaker 1** Yeah, I'd love to hear your journey in terms of how you knew you wanted to commit yourself in your life to education, how did that happen? It's a laughing matter for you. I see the evil laugh.

[00:15:10] **Speaker 3** I can't, I, I, I laugh because I never was one of those young people who knew what they.

[00:15:16] **Speaker 2** Wanted to be.

[00:15:16] **Speaker 3** When they grew up. I'm not sure I even know now.

[00:15:21] **Speaker 2** But I laugh because I needed a break. After college, I worked. Yeah, I was an athlete, a student athlete. I worked half time and and went to an academically rigorous institution. I was tired, tired of school. I was tired of that grind. So I wanted a break before I either went to graduate school or went to medical school. And so I took all my little tests or whatever. At any rate, there were a couple of options, and I wound up doing teach for America. So I taught in the rural. There were many things that I learned. I grew up just outside of Detroit in an inner ring suburb, but grew up there. But actually, yeah.

[00:15:55] **Speaker 3** Southfield Public Schools.

[00:15:56] **Speaker 2** Are the schools that I went to. And so I was pretty comfortable being in situations where I was the only white person, certainly very comfortable. My class, my high school class was very diverse, and I do mean diverse, class. But I didn't realize how much I would learn going as a Yankee, as a northerner, going to the South. I didn't actually think that was still really a thing to tell you honestly. So my students I taught ninth through 12th grade biology, chemistry, physics and water management from a grant.

[00:16:27] **Speaker 1** That came because you got to know when to drink water.

[00:16:29] **Speaker 2** And.

[00:16:30] **Speaker 3** You got to clean it and know how to filter it. Water management did water management systems, right.

[00:16:36] **Speaker 2** So my students, were just tremendous humans. They are still tremendous humans. I wasn't that much older than them. Right. Some of them were 18 when I showed up in their.

[00:16:45] **Speaker 3** Lives as a 22 year old first year teacher.

[00:16:50] **Speaker 2** And for some of them, I taught them all of the science that they ever got exposed to in their high school experience. But let me tell you, it was frightening for them.

[00:16:57] **Speaker 3** I was a I was a chemistry major in college, so it's a much better chemistry teacher that I was a physics teacher. Okay, at any rate.

[00:17:02] **Speaker 2** So it took me a long time to then ultimately decide, like, oh, I'm not done with this thing. I'm not done facing this inequality that's in our country. I could go be a doctor. I thought I always wanted, you know, that. I always thought that would be an interesting thing. I love taking care of people. I love science, it seemed like a good fit. But the longer I was in the classroom and the more I realized there was, there were levers to pull that could improve things for young people. The more I couldn't stop thinking about it. And when I went to graduate school for my PhD, I had no idea what graduate school even really was. So I was like, well, maybe I'll go back and be a principal. Maybe I'll be a superintendent. I don't know. And here I am, you know, fast forward to get real curious. I get sucked into and I love to think so. I got sucked into all the thinking stuff and the puzzling about on the intersections of research and policy and practice, which is where all the interesting stuff happened in my mind. And so two decades later, here I am running this big research center and studying, teaching and working with amazing people in K-12 school. So it was not a linear path there and even applied.

[00:18:09] **Speaker 3** To and was accepted to medical school. And finally like, okay, no, you really don't want to do that, Courtney. But it is hard.

[00:18:15] **Speaker 2** It's hard to figure out. I think when you're a young person, you know what you want to do.

[00:18:19] **Speaker 1** What was it like for you stepping in, to a role where you were the minority and and the students didn't look like you and, like, how did you handle, you know, the, the diversity of being in that situation. And what was it taught you? Was it what did you learn from it?

[00:18:38] **Speaker 2** All the things we say at my house.

[00:18:39] **Speaker 3** When something is complicated and profound. So I learned all the things.

[00:18:45] **Speaker 2** I one of the things I learned that was the most profound for me was the ways in which we can be born into advantages that we have no idea are even advantages. So the I said before like that, sometimes we send children to school and they they never at home get the message that they are loved and cherished and and great just the way they are. I was loved and cherished and great. Just I didn't know that was an advantage. I walked around with that advantage my whole life. I walked around with this skin color, which is an advantage in our public schools my whole life. So I learned a lot about the advantages that I had been given just simply by my circumstances. They were not earned advantages. They were just advantages. And one of the funnest things to learn was that when children were given the opportunity, and these were the descendants of sharecroppers, for the most part, this is the rural South in eastern North Carolina, in the tobacco and cotton fields. When those children were given the opportunity to learn, they just soaked that up, took every advantage of it, and and thrived and flourished. So it was it was amazing to me to understand the ways in which, in this country, which I thought of as a much more equal society at the time when I was 22 and wide eyed and idealistic. It was shocking to me that with some readjustment in opportunity to learn that there can be so much flourishing. It was it was kind of magical, actually, to watch and to be a part of. The greatest compliment I got from one of my students, which I can say to you 20 years later, is, Tiffany Garner said to me where I was doing after school tutoring and Tiffany, I was talking about, you know, she was let's say she was in fourth period and second period had been struggling with something. They were both chemistry classes or whatever. I said, but, you know, they're getting it, they're getting it. I think it's going to be fine. And Tiffany said to me, Miss Val, you think everyone can learn? You think all of us are smart? Yeah, I do. I think you can learn. And I think you're smart. That's actually true. So it was really fun to watch that become true, and to be a part of of being able to help them see their own potential.

[00:21:03] **Speaker 1** Now you have to hear it.

[00:21:04] **Speaker 2** You do have to hear it. We all need to hear it. Everybody needs to hear.

[00:21:07] **Speaker 3** It, you know? Yeah.

[00:21:09] **Speaker 1** And one thing I love about you work is you are internationals. You are all over the world. I'd love to get your perspective on, who's out there doing it the best hmm's teaching at the highest level out there. That the various levels.

[00:21:25] **Speaker 2** Yeah. Merve, I will just say to you, the systems are so different, one country to another. So they just take Singapore as a case in point, right? A diverse nation in terms of racial and ethnic backgrounds, in everything they they pride themselves on being a bilingual country. One institution in the whole country trains all the teachers. One, every teacher who is certified in that country goes through one institution. There is one curriculum. The government tells you where exactly you will teach. And I could go on. It is lined up so tightly in that system. All the standards, what teachers know, what kids are expected to know, the allocation of teachers across schools, they are drop dead serious about that now. So you say like, oh, and Singapore scores very high, unlike Pisa or some of these international assessments that the OECD and some of these global organizations, help countries use as yardsticks to see where they are. So you could say like, oh, well, Singapore's got it right, but it's very hard to say, like, oh, let's just take the Singapore thing and this, you know, let's go put it into Wisconsin.

[00:22:31] **Speaker 1** So I think of it being here, and I could see people resisting that because they want to be able to choose how they learn and what they learn. And but at the same time, I think of it like a franchise where if you've got everybody on the same page and it's being done the right way, then it's more likely to be done the right way. So I can see it both ways.

[00:22:50] **Speaker 2** Yeah, I can see I get right and it's a both and right. You can see why it works in one country in one way, and it works in another country the other way. What I can tell you, as Percy Salzberg, who is a very famous author that's written about the Finnish system, everyone talks about the Finnish system and the revolution that started in the 70s in Finland that has transformed Finnish education. And he's written a number of books about it. But one of the things he wrote in a recent blog post is that while we see, like, let's say, Japan, who really, if you want your child to learn math, send them to Japan. But, while we see these different economies and countries being successful in different ways, the one there are a few things that are true across all of them. One is that they don't use high stakes accountability. So I think about that as a policy person is like carrots and sticks like here. Come do this thing and you have this carrot and then.

[00:23:36] **Speaker 1** Oh no rewards.

[00:23:37] **Speaker 2** No, not not from the federal government, not in a sort of high stakes accountability kind of way. None of them use it like that. They don't have that. They do have in common. Continued. Very steady. We're not good with steady in the U.S., very steady investment in social capital. So human knowledge and capability at all levels of the system. So administrators, school principals, teachers, etc., school counselors, those systems, no matter how their structure, invest in that kind of knowledge and skill development with supports for professional learning at all levels of the system, they believe professionals have to keep learning. They all do that. We you don't need to talk to very many teachers to know we don't do that. That's not our superpower yet. Yet, yet.

[00:24:27] **Speaker 1** I'd love to hear your thoughts on what we do well here in Wisconsin when it comes to education and.

[00:24:32] **Speaker 2** To lots of things. Well, here. One of the things I think we do well, as we are not hyper reactive to national conversations. Some states really love to be on the leading edge of absolutely everything.

[00:24:48] **Speaker 3** Regardless of it's a good idea. We don't have that in us. We're a little bit more circumspect.

[00:24:54] **Speaker 2** That's a good thing, I think. One of the things we do well here has to do, I think a little bit with our Midwestern states, we do.

[00:25:02] **Speaker 3** Tend rural, suburban, urban.

[00:25:07] **Speaker 2** We do tend to see one another and try to show up for one another. And care about our communities. And that's not to say other states don't do that as well. But as a person who has lived around the country, it's been remarkable to see the ways in which, whole communities of people rally around young people and around schools here in Wisconsin.

[00:25:29] **Speaker 1** You know, and one of the things that was really fascinating about, when I first met you, was this idea of this education simulator, like we talked about, you know, they have simulators for pilots. We have simulators for people to learn how to drive. We have simulators for police officers that shoot, don't shoot those sorts of things. And and I don't even know if this is already in play now, but you were telling me about a simulator for education to teach teachers. How exactly does that work?

[00:26:00] **Speaker 2** It's just the coolest. And I should say, for audience members who, you know, have been in theater or done role plays, it takes that and it puts it automates some of that. It uses AI, artificial intelligence to do some of that. So we have it and it doesn't have to only be used for education people. So there's right now we're partnering with a company by the name of immersion. And they are where I'm sorry.

[00:26:21] **Speaker 1** You say Merv.

[00:26:23] **Speaker 2** I well they're not quite that cool version.

[00:26:25] **Speaker 1** Okay. I just want to make sure I had it right.

[00:26:27] **Speaker 3** Version number of. And where is it now? And immersion is working with a bunch of fortune 100.

[00:26:34] **Speaker 2** Companies right now. They're training all of the Starbucks people all the way through the same simulator we're using at WCR, for teachers, for teachers who are going to be certified for bilingual science. So right now there's a project, I have colleagues that are working on that. Mark Wilson and Mariana Castro are working on that. And my colleague Sarah Lent, Kimber Wilkerson, they're both special educators. They're working on doing it with special education teachers. And what you do is you're sitting in front of a computer, and the computer has the video camera on you. It gets the audio, there's a human in the loop. So it's not just the computer responding with preprogramed kinds of things. It's not that it's, there are young people, you could have one, you could have a parent, you could have another teacher if you wanted the teachers to practice. And there's a human in the loop that uses voice technology to modulate the voice. And you can change the skin colors, the hair, the outfits, the profiles of these people that appear on the screen. And you can practice. So I'll give you an example. One of the things that's very hard for beginning teachers is to ask a question and close their mouth and, and to stop talking and let the child respond and let the child respond long enough and with enough, you know, phrases in a row that the teacher can come to understand what that child.

[00:27:49] **Speaker 1** So you're saying, like, even as a teacher asking the students a question, the teacher continues to talk kind of thing.

[00:27:56] **Speaker 2** Yes. So it'll go like this. So I'll say, Murph, will you tell me what you know about the media? And so yes, at the screen were raised his hand and the teacher in the beginning, teacher says, okay, Merv, what do you have to say? And we're it gives a response like, oh, you know, at home my dad watches Fox News, or at home, my mom watches PBS or at home. I just know that the media is the news on TV. And then the teacher jumps right in and says, well, actually, there's three kinds of media that you could consider and like, then starts to explain. That's a very, very common pattern of question. One small response, a very long explanation. So we call that that they immediately start teaching. The problem is, the only thing the teacher knows at that moment is that Merv knows something about television and media. That's all the teacher knows. No probing questions. No. Like, oh, say more about there. Are there any other kinds of media that you're familiar with? Because the child might Merv might actually know five different kinds of media, but just happened to start on the TV program. And now the teacher has just explained everything away. So something like asking questions you can get really good at in a simulator. If we pause the simulator when the teacher starts to lecture Merv about media and say, look, okay, hold on, try a follow up question there.

[00:29:09] **Speaker 1** So there's like a little buzzer that goes and.

[00:29:11] **Speaker 2** Notes.

[00:29:11] **Speaker 1** That.

[00:29:12] **Speaker 3** Don't buzzers.

[00:29:13] **Speaker 1** Can we do that again because.

[00:29:15] **Speaker 3** You know really you're off the second strike. You're out. No not that hard.

[00:29:19] **Speaker 2** No. Is that. No. And usually the teacher educators are involved in it. They're teachers. You can get mentor teachers involved in it. And so that's like a really like a sort of benign example, but a very important skill for teachers to learn is to be able to go with the child thinking, so you can figure out what is going on here. Why did that could be in math? Why did you just do that thing? Let me not presume I understand why you just made that wrong answer. Let me ask enough questions and be quiet enough to learn. What's the story here? Right. But it can also be in, like, hard to have conversations, right? Principals have an angry, angry parent that shows up about something legitimately to be angry about. It's not fun to be in that situation for the first time with a real life person on the other side of it. So it's really good to get practice where you have to say the words that are maybe hard for you to say as a professional and say like, oh, okay.

[00:30:05] **Speaker 3** I haven't harmed anyone in the process.

[00:30:07] **Speaker 2** Of me messing that up. You can mess it up in the simulator. It doesn't hurt anybody. You haven't traumatized a child, you haven't lectured a parent. You right? Your relationships at your school building are still intact. So simulation allows us to help professionals do the things that they need to do so that when they get ready to go into the building, they're more ready.

[00:30:27] **Speaker 1** That's what I think. That's fascinating. Ditto it. What about in terms of, coaching teachers? In dealing with diversity in their classrooms, those sorts of things. Are there scenarios for that? Yes. And are you using like real types of scenarios to a play out?

[00:30:41] **Speaker 2** Yeah. No real situations that, you know, that people have in their classrooms all the time around. Often like a piece of text, we can put like a short text in front of the beginning teacher, say, okay, an example, we were just doing it the other day is you want to, help these five children identify the character traits of Bindi, the main character in the story. So what do you notice about Bindi in the story? And we can train the interactor, the person who's voicing and acting out those avatars that are on the screen. We can train them. If the tasks are standardized, we can train them to say things that real children say. And so we try all the tasks and test them out in the feedback loops. And it also helps us do research on how teachers learn or how professionals learn. So we can do sort of give them a scenario versus B, scenario versus C, and watch how they interact with those as they as teachers become more skilled. So we can learn about what does it mean to learn to teach.

[00:31:33] **Speaker 1** Well in that story? They're kind of this a little bit, but I'm curious because it feels like we're already kind of there. But I'm just curious, what do you think the future of teaching looks like? What is it? How's it going to change and how is it going to evolve?

[00:31:49] **Speaker 2** You know, I think certain things are going to stay the same and certain things will evolve. I think for sure all the online stuff is just going to keep exploding. I think the big transformation we all, as a society and teachers for sure have to face is what do we do about knowledge that can is in our pockets on our pocket computers, which are our phones, right? Are we going to continue to spend time, and how much time and in what ways to teach that knowledge? Knowledge is critical, right? Knowledge builds the infrastructure in our brains that then helps us solve problems. So it's not that it's irrelevant just because we can look it up, but how are we going to spend time on that? And how are we going to spend time on the integration of knowledge and action being in the world and problem solving, these more critical, higher order kinds of things? The fact that it's so easy to look things up and you can find the answers so quickly, I think that will, you know, 20, 40 years from now, we will have a different set of answers to that than we have today. But something that I think is going to stay the same is like, I'm willing to learn from you. If I'm willing to learn from you, that's still going to be true. So our relationships with one another are going to matter. You're still going to be teaching me about a thing about journalism or about science or about math. You are going to need to know about that thing, and you're going to have to help guide me to learn about that thing. So some of the interactions I think are probably going to be the same. They might look different, maybe some will be more online, maybe they'll be more hybrid, but certain things probably are going to be a little bit different with the computers that I mean, that's the biggest revolution. And for sure I as.

[00:33:19] **Speaker 1** Well, I teachers in the classroom permanently ever happening. Like, I don't know.

[00:33:25] **Speaker 2** I don't want my child there. I'll say that. No, I don't think so. I mean, think about if you think about your most profound learning experiences, there are some. Of them that are alone, right? Just with the subject, or maybe reading a book, or writing a.

[00:33:38] **Speaker 3** Poem.

[00:33:39] **Speaker 2** Or practicing your scales on the piano or something like that, or tinkering with a bike, you learn that way. So it's not that individual learning alone. Kind of learning with automated information is not useful. It is, but it has and it has limits. It has constraints on what kinds of things it can teach you. So maybe it'll be a part of the solution. But I doubt, I doubt a big part.

[00:34:01] **Speaker 1** I don't do this. Everybody even let me do this before, but I give out these superpowers from turn the turn this stuff. I give you superpowers. What are you doing with it in the world of education?

[00:34:19] **Speaker 2** Turning in my super power, I would be able to somehow.

[00:34:25] **Speaker 3** Magically, because it's a magical superpower.

[00:34:28] **Speaker 2** I would be able to get people. To suspend disbelief long enough that they could listen to one another and try to focus on common solutions and common ground, because I think we have common ground. But in this divided and increasingly polarized society. It's hard for us to see what what unites us. My superpower would be to be able to bring us together and help people see what's common, and help us figure out how to work out that good stuff.

[00:34:58] **Speaker 1** That, according to Bill, thank you so much for joining us on InFocus.

[00:35:01] **Speaker 2** Thank you for having me.