

HOSUN KANG: Hey, so my name is Hosun Kang. I'm associate professor at the University of California, Irvine. As part of my NSF project, I have been collaborating with local school district. This year and last year, we have been recruiting 20 science teachers, mostly middle and high school. And a lot of them are high school chemistry, physics teacher. And we have some middle school teachers.

So I have been collaborating with them. And the project is focusing on equity and justice-centered and also civic engagement focused science instruction. And one of the things that they're trying to do better is the district has a strong focus around civic engagement pieces. The leadership is a lesser concern about student's standardized testing score, but they want students to be ready for the college and ready for the future society.

So all these things are coming together. So we are co-designing the unit, but unit is-- the clear goal is justice-centered, specifically climate justice, and then addressing the Next Generation Science Standard, and then supporting student civic engagement. So these three things become our goal.

So whenever we design, co-design this unit, we keep reminding ourselves, OK, so we try to bring this justice and then civic engagement pieces, and then make sure we are addressing the Next Generation Science Standards. This is not easy. As you can imagine, we have a pretty challenging goal, but teachers wanted to learn about it so we start the conversation.

So my PD, sometimes people think my PD is about designing curriculum and assessment. However, for me, promoting equity and justice is not about designing curriculum and assessment. It is about supporting teachers to figure out who they want it to be. And then the curriculum becomes a tool for them to really enact the kind of identity that they want it to be.

So we create a lot of space for them to share their stories, and what matters to them, and why they are here. And I bring a lot of teachers' voices. And we have a lot of amazing, amazing educator who's deeply committed to this kind of work and alleviate their voices. So find the place where, really, sharing. It is not my commitment. It is your voices. This is your language.

You are here because of that reason. Let's figure out how we can help you to get there. So more, the PD is, continuously, we have this very, very intentional work of supporting teachers to do their identity work by telling the story about the student, telling the story about the curriculum. So those are the ways in which the PD is designed.

So in the school district, there is a food desert because a dominant population in the community are living under this "food desert," meaning that the community doesn't have access to the fresh food. So the school developed this beautiful farm in the school garden. It's a 2.5 acres of huge farm, which the farm is sitting right next to the chemistry classroom. But then chemistry teachers never have using that farm as a space for learning.

But it's not because they don't like it, but they don't have a difficulty in make the connection of content of chemistry and then using farm as a space for learning because, as you know, it is not straightforward. So toward what end the students can contribute to addressing some of the injustice that our community are experiencing around the topic of food insecurity, and also how we can attending and addressing more global problem that we are challenging, which is around climate change and climate justice related issue, which is also relating to the food issue.

Whatever beautiful curriculum you design, beautiful assessment you design, if you don't see racial injustice that is happening in the moment of interaction, we'll keep using the language in a very deficit language to label these kids. You're not addressing injustice. So that's why it takes time. And that's why I think it's so important to do this identity work because I have to challenge teacher's deficit framing and/or deficit language that they has been inculturated in this society forever.

And without blaming them as an individual because I don't see that as their problem or their fault. They has been growing up in this society. And they are participating in this cultural discourse. So how we can helping them to see that, and how we can helping them to see the either intended or unintended consequences of using the language, and using that framing, using that-- having that interaction, and what is the consequences.