Using Curiosity to Drive Learning

Kristen Hardy

"When we're curious, that's when the deepest learning happens," said Wendy Ostroff to participants in her Monday morning ASCD Empower17 session "Cultivating Curiosity in K–12 Classrooms: Surefire Techniques for Deep Learning."

Ostroff discussed the flow state of learning, or the place where a student is fully immersed in the activity at hand.

"If we can use curiosity to set the stage for learning, then we won't have to worry about things like anxiety and behavioral problems, motivation issues for kids, or attention issues," said Ostroff. "Because when someone is curious and gets into that flow state, those issues fall away."

Ostroff cited recent studies in developmental psychology that show preK kids (between 2 and 5 years old) ask 76 questions per hour on average. Yet, once children enter formal school, that number drops dramatically. K?1 students ask around 2 to 5 questions per hour, and by 5th grade, questions are virtually absent.

This data invites the question, "What if the way we teach is not in alignment with how students best learn?" according to Ostroff.

Learning Guided by Curiosity Is Deeper and Lasts Longer

The flow state is enjoyable because our brains get a hit of dopamine when we're genuinely interested in a subject. The dopamine system is connected to the prefrontal cortex and the hippocampus, which means that dopamine helps us notice things that we otherwise wouldn't and remember more.

"This is the state we want our students in—where they can take in and get the most," noted Ostroff.

And not only does the dopamine state apply to what students are highly curious in, but it also leads to superior learning on unrelated information. According to Ostroff, this is where the job of the teacher comes in. "This is where we can get them excited and curious, get them in that state of heightened dopamine, and then scaffold out and bring in other information," she said.

Genuine Curiosity Must Be Co-Created and Maintained

"When we're trying new things, we can transform kids' curiosity into inquiry. We can show them how it's done," Ostroff said. She proposed the way forward in piquing students' curiosity is for teachers to model curiosity themselves. Teachers can pave the way to make a space where there is co-learning and co-creating.

Ostroff didn't ignore that teachers are being evaluated on getting through the material, which can feel overwhelming at times. "So curiosity takes courage," she said. "We have to venture into the unknown. … That's very risky for us to do."

Ostroff proposed that teachers are more like improv actors than stage actors. It's not about memorizing a script—improv is the ability in the moment to be flexible and respond.

"Every class session is an opportunity to create something in real time where we don't know exactly what's going to happen," she said. "Some really interesting learning might emerge."

Ostroff encouraged teachers to fight for the freedom to control what happens in their classrooms, with one primary avenue being changing their relationship to time. "Curiosity can't happen in 40-minute blocks," she advised. She encouraged teachers to embrace unstructured time to help their students find something that sparks their interest.

"The best, deepest learning happens when you're genuinely curious, so I think if we prioritize that, it's really going to affect change," said Ostroff.

For more information on how to cultivate curiosity in the classroom, check out Ostroff's book *Cultivating Curiosity in K–12 Classrooms: How to Promote and Sustain Deep Learning*.

Kristen Hardy is a fourth-year Communication Studies student at UCLA. She works as a copy editor for the* Daily Bruin *and a writer for the* UCLA Magazine*. E-mail her at kristennhardy@gmail.com.