

What does a Knowledge Creation Classroom look like?

MS: [00:00] The issue of what does a classroom look like if students are really engaged in knowledge creation of course comes up a lot, and the trouble is there's just no easy answer to that. It's hard to go into any classroom and in three, five minutes say, "Ah, that's knowledge creation." You've got to also appreciate that in Nobel laureate labs, you would not go into them and in three to five minutes say, "Oh, that's a Nobel laureate lab." You know, the—the—there are long lulls and getting stuck with ideas. There are plateaus. There are kinds of struggling. There are some high points and breakthroughs.

The literal point of putting a new idea into the world is rare in—in all contexts, so what you really need to do is, for me, I always listen to the discourse. If I hear students on one hand saying, "Oh, we're writing an essay and it's to be this many words and," or, "I'm doing my homework." If they're talking about the jobs they're doing, "I'm solving this problem." "I am—I'm going to read this chapter and then we're going to meet and talk about this." "I asked these questions and I'm interested in this." So they're talking about their activities.

I'd listen for things like, "You know what I'm wondering? The piece I don't quite get that I wish—like, I wonder if anybody else is interested in this." "You know, I was studying this and do you know Einstein used to think ...?" Like, they think of themselves as one with great thinkers historically. And so, I—I listen to the discourse of wonderment, discovery.

I also try to listen—so inquiry classrooms are becoming, of course, much more dominant, but if you think about inquiry in the—the sense that students ask questions, other people answer them, then we don't have knowledge creation: we still have questioning as this, "Oh, I ask the questions, the knowledge creators give the answers." That's really different from saying, "I'm going to ask a question that I am going to pursue. Like, maybe I could work at the cutting edge of this field."

So that's a—a kind of—that takes a kind of discourse where students say, "Hmm, so what do people know now? Well, what is it that people don't quite understand? And where—where's my idea along this trajectory?" So listening to the discourse is one thing I listen for to see if we have a classroom that's—that's on a knowledge-creating trajectory.

The other thing I listen to a lot is if it's mostly, "I thought this," "I discovered this," "I read this," as opposed to, "Oh, I heard this great new idea and then Joey said this and then I got this idea, and then the other thing that we did—" So this much more sense that they are working because it's really, really hard to be on your se—own and create knowledge. Like, we have this model of the genius, the brilliant new idea, and this is just such a small part of what knowledge creation is really about; that this learning, that it is such helpful for you if somebody finds a problem with your idea. But you have to do it in a gentle way. I mean, you know, it's kind of like, "Ah, that was a nice idea, but could it explain this?" So I think I listen for that.

I listen for one—something that one superintendent who visited a school noticed, and we were elated. And he said, "What a civil knowledge culture."

And I thought, "What a lovely phrase." And I—I tried to pursue, "What do you mean by a knowledge culture?"

And he said, “Well, they’re so generous with each other’s ideas. They really listen to each other’s ideas. They tend to repeat the ideas. They show evidence that they thought about it because they tend to add something like, ‘Ah, that helps me understand this piece that I couldn’t understand before,’ or, ‘I’d like to build on your idea,’ or, ‘I think we could rise above to some new idea.’”

And two things were just immediately fascinating for me in his account. **[05:00]** The one was that he so felt this generosity between students in supporting their ideas, but the other that was fun for me was “rise above,” “build on.” These are exactly what the technology supports. It supports rise above notes. You build on people’s ideas. We’re very careful not to just say “record” but “build on” instead. So what was interesting was the—the technology, which is built to support the process, was actually also helping to give the vocabulary for the kinds of operations.

I think another, you know, now spiffy technology is—is really getting so common that I don’t think it would ever be a signal to whether you have a knowledge-creating class. What we are—so it—these immersive environments, powerful games. So I think people look at those and think, “Wow, that’s modern education.” Well, it’s surely modern technology, but the—the—the issue is are the students truly the ones who are able to generate the knowledge? And are they learning from these artifacts? Which of course, we hope they are. But for us, the technology now will go one more layer and it will allow powerful discourse to surround—surround all these open—sorry.

All of these web-based environments, the new technologies, are giving students powerful games, powerful simulations, very powerful places to work. The issue for us is can we get this level of contemplative discourse surrounding the work there? So it’s not just, “I play this game to learn what the gaming people want me to learn,” or, “I study the simulation to get somewhere,” but it’s—it’s a piece of information, like other information in the world. “I work on it. I build it. I actually imagine I could advance beyond the knowledge in that simulation.”

So they take themselves as the knowledge creation challenge and bring it to what we—whatever they do, so our goal is to take the powerful discourse, allow entry points to these open and free resources, but give students the capacity always to think of idea improvement, advancing sustained creative work with ideas. These are objects of discourse and they’re not the final pieces of understanding.

So that’s another aspect of a—a knowledge-creating classroom. It would really be not just that they’re using powerful technology, but the student’s voice will be what’s more impressive than any bit of powerful technology. You will hear them contemplating, wondering, imagining what they could invent. You’ll see a different aspect of the work going on that really comes from the students themselves.

[END OF RECORDING – length, 08:24]