Concurrent, Embedded and Transformative Assessment

MS: **[00:00]** It's—it's actually, with assessment, the—the trying, even though the phrase is very cumbersome, to use three terms: concurrent, embedded, and transformative. Because we think that all three are going to be really the entrée to us really breaking through with classrooms as knowledge-creating classrooms on a—on a large scale. So let me just take each one of those words and tell you why we think it's important.

Concurrent is that while you're working, the feedback is coming to you, so I need to give you an example to do that. I think I said earlier that we're very committed to a community space. The technology should create, like, for knowledge creation historically, how do ideas grow? Well, people come together. The—during the Renaissance, the Impressionists, the cafes. People come together. They see what each other's doing. They build on it. The—one idea generates another. You get these powerful contexts where ideas grow and people get excited about the new forms they take.

The trouble with having, within classrooms, everything just depend on transient discourse, which kids talk about it. They might pin something on a wall, but then the moment's gone. What we've been trying to do is create a community space where ideas can live. They grow. They don't just go away. Once you have those kinds of environments, and you have the kind of—where the norm is creative, sustained work with ideas. Then what you also do is you have a space where students' discourse lives. That is, their ideas. That's where they are. They draw. They put in videos. They can speak their ideas in. It's a multimedia context where their ideas can live and grow, and other people read them, build on them. To the extent teachers want, they can open them up to spaces anywhere in the world, so they have an open world for ideas.

Now once you have that—I'm back to my con—concurrent criterion—we can say over time, you just can, like, push a button and say, "Show me my vocabulary," and you will find out, have I generated any new word in the last hour, two weeks, whatever. But so—it—it—concurrent says, "Whoops. Nope. No new words in whatever period of time," or, "Ten new words." Now, that's a really simple example, but it's concurrent because the student themself can determine what is growing or not growing. The student can get this feedback extre—very, very quickly. We care a lot about community dynamics, so the last thing we would want is for some students to be left outside of the energy of the classroom.

So again, you say, "What's the social network look like in my classroom?" And you can find out, again, we're talking seconds, so your feedback is very fast and why we call it concurrent. Whether somebody actually hasn't generated any ideas at all. Or they have but nobody's read them, nobody's commented on them. Well, these are things you need to know in real time if you're going to deal with it. And what we find out is as soon as teachers know this, they tend to do really effective things like they say, "I read this idea. I bet you're all going to be interested in." They just create the energy that gets this child from being an isolate to being engaged. But without the concurrent feedback, you know, you do it a week, even a day later, the moment's gone. I think this notion of concurrent feedback is—is really important.

We say transformative because for decades we talked about the power of communities, but I think if you take almost any literature about any technology out there; I just read one about the extent to which blogs, supposedly designed to get ideas out there and

create social dynamics around social media, still are mostly used by individuals with them not read very much at all. But—but these data aren't easily available to us, so when I say transformative, this notion that our technologies, we say social media but for the most part they're still used as very individual accounts. They're used very much **[05:00]** to determine, "Is this student doing better?" not, "Is the group working effectively together?" So our assessments are still primary individual assessments. We don't have powerful group assessments. We think in terms of individuals so it's very hard to transform the structure if you don't have the assessments that will give you some sense.

So having talked about the power of communities for so many decades, it wasn't until we started having these little social network analyses where people could see the structure of their classroom. Who's engaged? Who's not engaged? What—which—even in small group classrooms which are thought to be a really powerful, new, modern grouping, lots of times you'll just see those small groups get going, but they don't know the ideas from the other small groups, so you don't get distributed expertise as it is. What you get is pockets of information. So being able to transform the classroom structure takes a kind of look at what am I trying to achieve? And then, also this notion that you have the tools available to let you know are you trying to achieve it, and if not, how can you correct?

And the—the last one, of embedded, I think unless we really make this really important shift from assessment that people design tests and then they determine how well did you do. So that's how most of our tests operate. You're taken out of the classroom and you go and get tested, or the test is brought to the classroom, but nonetheless it's by a third agent coming in, determining how well are you doing. So I'm not saying that we shouldn't have these, but embedded assessments are actually the ones where you yourself are trying to find out are you doing better. And you are, as we've discovered, when kids have these new assessment tools available to them, they come up with good ideas for designing better assessments.

I can give you one example that absolutely knocked me out. So in our earlier work, we made a distinction between what we call knowledge-telling classrooms and knowledge-transforming classrooms. So the knowledge-telling ones were the ones where the students, whatever they heard, they would say it back, so they would tell the knowledge again. If they were asked to write an essay, they would start within five seconds, write everything they knew as fast as they knew, so they would tell what they knew. When I mentioned before about the kids who were novices but on an expert trajectory, they would be much more contemplative. They would get started with an idea. They would think, "Oh, maybe it's not the best. Let me try again." So this contemplative, transformative work would take place.

So anyhow, Carl Bereiter and I said, "Oh!" It took us a long time to discover this, but there's a knowledge-telling trans—strategy. That's what the novices use, and there's a knowledge-transforming strategy, and that's what novices becoming experts and experts use. So knowledge transformation became what we were—what we were after. So we wrote this little essay on the difference between knowledge-telling and knowledge-transforming strategies.

A teacher—I mean, it was such a brilliant move. This is what so excites me about working with teachers. They—this teacher said, "Gee, I wonder if my students would understand the difference between knowledge-telling and knowledge-transforming." So they literally gave the young students. I don't know how young, but they were maybe

Grade 3. Gave them a little bit of information and the students understood what knowledge-telling and knowledge-transforming strategies were.

So we're listening into the class a little later and this child says—they—oh, they had deign—designed their scaffolds, so instead of "My theory," "I need to understand," they had designed their scaffolds and they had "I know," "This is how it happened," "I said this." The—those were their—they—their self-designed scaffolds.

And one child after reading about knowledge-telling and knowledge-transforming says, "We designed a knowledge-telling scaffold. We need to—we need a knowledge-transforming scaffold." And it—that's amazing. Just amazing that they were saying, "Our discourse is settling into just telling what we know. We need ..." And then the child says, "Oh, I bet that's why they said, 'My theory,' and, 'I need to understand.'" And I—they actually—they—they came up with a number of ideas.

Anyhow, it's this inventing the scaffold and that's, **[10:00]** for me, transformative in the sense that the students can be part of designing the assessment tools. They can actually help you say what will help them think harder, what will sustain their hard-earned query. Our—our sense is our problem isn't that they don't want to think harder and deeper, it's mostly that it's kind of scary, doesn't—it's not the norm, so it's not very easy, and we don't give them much support for that.

So concurrent, embedded, and transformative assessment. We're thinking as a community we can design powerful, powerful feedback mechanisms that will really help classrooms grow. So that's the nature—that's what we're desi—up to with the assessment.

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