Beyond Knowing Facts, How Do We Get to a Deeper Level of Learning?

Katrina Schwartz

Teaching Strategies

As educators across the country continue to examine the best ways of teaching and learning, a new lexicon is beginning to emerge that describes one particular approach — deeper learning. The phrase implies a rich learning experience for students that allows them to really dig into a subject and understand it in a way that requires more than just memorizing facts.

The elements that make up this approach are not necessarily new — great teachers have been employing these tactics for years. But now there’s a movement to codify the different pieces that define the deeper learning approach, and to spread the knowledge from teacher to teacher, school to school in the form of a Deeper Learning MOOC (massive open online course), organized by a group of schools, non-profits, and sponsored by the Hewlett Foundation.

So what defines deeper learning? This group has identified six competencies: mastering content, critical thinking, effective written and oral communication, collaboration, learning how to learn, and developing academic mindsets.

To help put these concepts in perspective, consider the example of a High Tech High sophomore class in San Diego that worked together in groups on a project combining humanities and physics through the lens of the rise and fall of ancient civilizations. Students were responsible for creating a mechanism to explain their theory about why those civilizations failed, drawing on what they’d learned about gears through the course of the project.
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“My individual mechanism didn’t work on exhibition day, when the whole school was watching,” said Maya Ervin, a sophomore at High Tech High during the first online panel of the MOOC. The malfunction didn’t affect her entire grade because her teacher had been watching her collaborate and communicate with her group on the project for weeks and had many data points to assess her understanding of the material.

“The great project for education everywhere is to reach all students and to discover that all students are capable of deeper learning,” said Rob Riordan, co-founder of High Tech High in describing the goal of the Deeper Learning MOOC. “The question then becomes, how do we find ways to offer access to all learners and in ways that all can shine.” That means letting students get their hands on materials to build things, giving them a real question or problem that’s worth pursuing and making them feel that they are engaged in authentic, valuable work.

“What you want to have is a sense of imagination, intuition and inspiration, and those don’t miss-predict based on socio-economic status, race, gender or language ability,” said Larry Rosenstock, High Tech High’s other founder. “Those are natural elements and talents that are all within us, but they’re not drawn upon in schools.” When schools try to draw out these innate human qualities, the social differences between students no longer matter for their achievement. But to achieve that vision of equitable learning, educators must recognize the varied strengths of students, some of which might not be strictly related to academic content.

**CULTIVATING ACADEMIC MINDSETS**

Educators often discuss the difficulty of teaching students who don’t seem to want to learn. Without internal motivation and curiosity, school can feel like a chore to many students. But there are concrete ways to help students develop motivation and other positive academic mindsets. “The key is that we can develop in students that inner drive, that motivation for them to make the most out of those learning experiences,” said Eduardo Briceño, CEO of Mindset Works, a non-profit started by Stanford Professor Carol Dweck based on her research.

To develop a positive academic mindset, these are four key beliefs students must hold:

- I can change my intelligence and abilities through effort
- I can succeed
- I belong in this learning community
- This work has value and purpose for me

When those beliefs are present and paired with learning strategies to help with effective self-management, any student can be successful. “We have to be deliberate about creating environments that foster those beliefs and strategies in students so they take ownership of learning,” Briceno said. “There is not one way to create deeper learning, different schools can design themselves in different ways to create deeper learning experiences and outcomes for their students.”

**DEEPER LEARNING AND THE COMMON CORE**

“Teachers consistently tell us the things that hold them back from deeper learning are state tests and college expectations,” said Jal Mehta, professor at Harvard Graduate School of Education. Mehta has spent a lot of time visiting schools around the country, documenting deeper learning or its lack. In high school, teachers say there are too many required topics so classes turn into shallow treatments of a wide range of topics, rather than a deep dive on just a few.

The Common Core State Standards try to take a deeper approach to learning, but Deeper Learning MOOC panelists agreed that whether the standards live up to their expectations depends on implementation. “If you add a few letters
to standards you get standardization and standardization is the death knell to innovation,” said Rosenstock. “I think that there’s a lot of ways that you can be accountable and the greatest risk for standards is that they devolve into content standards, instead of process standards.”

Panelists agreed that for the most part the Common Core Standards are trying to move in the right direction, but how those standards are assessed can become tricky. “Before we assess, we need to know what we are assessing for,” said Marc Chun, program officer at the Hewlett Foundation. What does effective collaboration look like? What does it really look like to be a critical thinker? These skill are more oriented towards process than content, making them difficult to assess in a standardized way.

**EDUCATORS AND DEEPER LEARNING**

“The relationship between teachers and administrators parallels the relationship between teachers and students,” said Mehta. If administrators hold tightly to hierarchy, teachers are more likely to see themselves as the authority figure in the classroom. Conversely, if there is a respectful partnership between administrators and teachers that approach transfers to the classroom, modeling how teachers can treat students as partners in the learning process.

Another important key to success is for educators to move away from siloed disciplines and work together in groups. Rosenstock said High Tech High teachers rarely work alone. Instead, they look for ways to create projects that cross the boundaries of disciplines, the way real world problems often do.

It’s also worth recognizing that deeper learning isn’t happening everywhere and some teachers may have never experienced that kind of learning in their own schooling. In those cases, it might help them to see deeper learning in action in order to understand how they might be able to implement it in their classrooms. “Despite the fact that there’s not that much deeper learning out there, when there is, it’s really powerful,” Mehta said. “The most helpful thing with respect to learning about deeper learning was seeing it and then doing it.”

**GETTING STARTED WITH DEEPER LEARNING**

One easy way to try out deeper learning is to ask students what interests them. Don’t have any curricular goals in mind, just ask them genuinely what they care about. Throw the ideas up on the board and group them, looking for an overarching theme. “As educators you forget to go to students and ask a question,” said Maya Ervin, the High Tech High sophomore. “Sometimes it’s forgotten that the students are the ones that are most affected by deeper learning.”

Rob Riordan has tried this method with students of all ages. With one sixth grade class it was clear that all their questions were linked to the end of the world. The class ended up studying asteroids, earthquakes, the Mayan calendar and other apocalyptic events.

The core competencies of deeper learning will transfer beyond school and into the rest of students lives. That makes it imperative that all students acquire them through school and makes any discussions of deeper learning one about equity. “I think that the notion of deeper learning is ultimately a social justice issue,” said Chun. “We need to find ways for everyone to have this otherwise they’ll be left behind with the challenges we’ll face in the world.”

Explore: deeper learning, DLMOOC, Hewlett Foundation, High Tech High

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