Technology Trends for Teachers to Try in 2014

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December 23, 2013

Students learn best when they're invested in the material, but getting teens to that point isn't easy.

"The student comes in, puts their head down and goes to sleep or just ignores what's going on in the class. How do we stop that?" says Rich Lamb, an assistant professor in the College of Education at Washington State University.

One way: technology.

Tools such as tablets, videos and 3-D printing can make otherwise flat lessons come to life, says Lamb, who previously taught science at high schools in Virginia and North Carolina.

Essentially, technology hooks students, he says.

"Once you can get the student hooked, then they're open to being taught," Lamb says.

There is no shortage of tools to help teachers engage students. Here are three tech trends teachers can try in 2014.

1. 3-D printing: Once considered a far-fetched technology, 3-D printers are about to go mainstream.

"I've seen them used in elementary schools all the way up to high schools," says Lamb, who researches educational technology.

Students can work in groups to develop and test a solution to a given problem, with an actual product coming out at the end. Using the high-tech printers, teens can build complex gear mechanisms, conduits for water and even water filtration systems, Lamb says.

[Read more about technology in the classroom.]

Lessons built around 3-D printers hone 21st century skills such as collaboration and problem-solving. Prices for the printers can range from several hundred to several thousand dollars, but Lamb points out that this is relatively affordable when compared to other teaching materials.

2. Personalized lessons: Students learn in different ways. Some soak up text like a sponge, while others best grasp a concept when they see it or get their hands on it.

Forsyth County Schools in Georgia is making this type of personalized learning the district standard thanks to what Mike Evans, the district's director of information and instructional support, refers to as a "recommendation engine."

The system assesses students' learning styles – visual, auditory or kinesthetic – and then suggests different resources for teachers to use on a given lesson to reach each type of learner.

[See photos of the Best High Schools for STEM.]

While Forsyth has the financial resources for a districtwide system thanks to a federal grant, teachers can still approach personalized learning by incorporating online resources that appeal to a variety of learning styles. This could include Khan Academy videos or using Skype to bring researchers and experts into their classroom via video chat, Evans says.

3. Social lesson sharing: Classrooms can be isolating, but educators don't have to teach in silos. Websites such as NROC Math and Share My Lesson allow teachers to share lesson plans and best practices with peers not just in their district, but across the country.

The networking aspect of these sites can be especially beneficial for high school teachers in rural schools, Lamb says.

"For example, in Lewiston-Clarkson, there's one biology teacher," he says referring to two rural districts straddling the Washington-Idaho border. "That biology teacher, she doesn't have the opportunity to interact with another colleague to really bounce lesson plan ideas off."

State-level sites exist, which have lesson plans aligned to the state's standards, as well as Common Core standards, where applicable. Educators can also look to organizations such as the National Science Teachers Association or the National Council of Teachers of Mathematics to find national sites with lessons for their specific discipline.

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