



What Happens When Students Design Their Own Assessments?

For a network of Virginia public schools, student projects offer proof of learning

By **Madeline Will**

May 24, 2017

Roanoke, Va.

[← Back to Story](#)

With classmates, parents, teachers, and even the Roanoke County schools superintendent standing before him, high school senior Bubba Smith took a deep breath and set the two-story Rube Goldberg machine into motion.

The contraption, which performed a series of complicated actions to lift a banner, was part of Bubba's fourth-quarter grade for his AP Physics class. Students in physics and the AP Calculus class worked on the machine for nine weeks and then presented it during Hidden Valley High School's end-of-year exhibition of students' projects, most of which they designed themselves.

"We were doing stuff we don't normally do in a classroom," Bubba said of his project. "We don't play with PVC pipes and ropes in the classroom."

His classmate Ryan Crosser agreed. "A normal project is the same thing over and over again. It's very structured—school is very structured," he said.

Student-led assessments like this one are, in many ways, antithetical to the structure of the typical fill-in-the-bubble test. Students are asked to demonstrate their learning and knowledge in a meaningful way and to reflect on their own performance.

Nestled in the heart of Virginia's Blue Ridge Mountains, the Roanoke County district has joined 10 other districts in the state that make up a **Networked Improvement Community** focused on implementing student-led assessment to bring about a deeper level of learning. The community is underwritten by the **Assessment for Learning Project**, a multiyear \$15 million grant-making and field-building initiative led by the Center for Innovation in Education at the University of Kentucky.

The project, supported through private philanthropy, is seeding 17 cutting-edge approaches across the country that vary in size and scope, to better understand how assessment can play into a more personalized, student-centered, competency-based learning process.

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"The way we've been thinking of assessment that is driven by accountability—assessment with a capital A—isn't delivering on the kind of learning and the kind of relationships that kids really need to succeed," said Sarah Lench, the project's director. "There's a broader definition of student success than proficiency on English and math tests."

Getting Teachers on Board

In Virginia, the 11 districts involved in the network are all grappling with different student-led assessment questions, including which grades to start with and what the assessment itself can look like. But the community has highlighted some key themes to guide its work: The assessment process must be meaningful to the student. The student receives feedback throughout the process, not just at the end. The student clearly demonstrates learning or growth. The student assesses his or her work. And, above all, students should be active participants in the assessment process.

One of the biggest challenges of this work is changing people's mindsets, said Shannon King, the manager of the Best Practices for Teaching & Learning program at the Fairfax County school system, which oversees the 11-district community.

"Teachers have to be willing to give up control and trust that students are going to do amazing things," she said.

To get there, most districts in the network have found that teachers need professional development, although a consensus hasn't emerged on what that should look like.

In the nearly 14,000-student Roanoke County district, for example, the professional development has been job-embedded.

While student-led assessment is not mandatory for teachers, they are encouraged to visit the classes where it is happening, said Rhonda Stegall, the director of secondary instruction for the Roanoke County district.

Hidden Valley High's work in the student-led assessment area is the most advanced in the district. Hidden Valley Middle School had its first exhibition of student-driven projects this year, and other schools in the district are interested in participating in the future.

Consultants have also worked with interested teachers to guide them through the process of letting students take more control of their learning, Stegall said. At Hidden Valley High, the transition has been slow but steady.

Four years ago, only eight teachers were interested in trying student-led assessments. Now, three-quarters of the 70 teachers in the school, from all subject areas, take part, said Stegall, who had previously been the principal of Hidden Valley High when they started the program.

"[Teachers have] spent the last 10 or 12 years learning how to teach to the test, so it's hard to break away from that mindset," she said. "Ultimately, this is really good instruction, and they see that this taps into students' enthusiasm and engagement."

Research shows that when students have a greater sense of agency, they perform better, said Eric Toshalis, the research director of Jobs for the Future, a nonprofit that runs the **Student-Centered Learning Research Collaborative**, an effort aimed at investigating and sharing knowledge about student-centered learning approaches.

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"Learners' attention and engagement tends to be optimized whenever they are put in a position to own the information, to be driving the questions that are asked, and to have a role in deciding how they'll be assessed," he said.

"The locus of control in that particular learning activity moves from the instructor to the student. Like all of us, [when] the student has the experience of feeling like they are in control of ... and proficient at something; they understand in greater depth."

At Hidden Valley High, state test scores stayed the same after the school began implementing student-led assessments—they didn't increase, but they also didn't drop. Teachers had been concerned about the scores dropping, Stegall said, but once they saw the results and realized students were excited about learning, they were sold.

"The morale was really low when we were focusing on the test and the disaggregation of data—that's the only thing we were talking about," Stegall said. "Before, the [tests] had control over [their profession]. Now, they're starting to take back some of that control. The morale has gone up; the enthusiasm, the passion for teaching is back."

During the exhibition night, teachers in Roanoke remarked on how much more engaged students were with these projects, which made their job more fun, they said.

"I love the inquiry-based and project-based learning," said Beverly Newbern, a history and psychology teacher at Hidden Valley High. "You never see them light up otherwise. They're out of their chairs—the same chairs your great-great-grandparents have been sitting in since 1901."

'Assessment Is a Process'

Another challenge has been to differentiate student-led assessment from a science-fair-type project, Stegall said. Initially, she said, a lot of the projects were "fluff," while teachers learned how to incorporate meaty content and the state standards into students' projects.

Now, checks of understanding are built into the process, along with quizzes, tests, or written components. At Hidden Valley High, students often go through protocols, where teachers and fellow students ask probing questions and discuss concerns about the project to make sure it is academically rigorous. And at the end, students have to evaluate their own work. The teacher determines the final grade, based on student self-assessment, peer assessment, and other benchmarks. Stegall said some teachers ask their students to explain the grade they deserve and why, providing information to back up their assertion.

As King, who oversees the Virginia network, put it: "A test is an event, and assessment is a process. It's really embedded in that teaching and learning cycle."

And that process can be challenging for students, Stegall said. "Some of our top-level kids, they really struggle with projects. They're good at taking tests," she said. "Their strength is direct recall of information, writing it on a piece of paper."

During exhibition night, students pointed to real-world skills as their main takeaways from their projects.



Nabeel Raza, a sophomore at Hidden Valley High School in Roanoke, Va., mans a station of the two-story Rube Goldberg machine that students built to demonstrate their physics and calculus skills.
—Stephanie Klein-Davis for Education Week

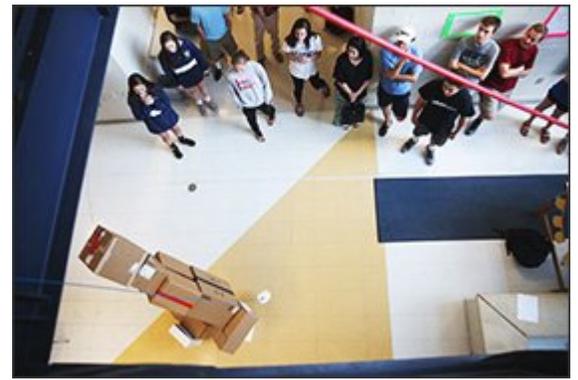
The students who worked on the Rube Goldberg machine learned how to collaborate with different personalities, Bubba said, adding that he had to learn to delegate instead of handling everything himself.

"It wasn't like a physics lab. ... It was something that failed, and we had to fix," said senior Matthew Whitely, who also worked on that project. Groups of students built components of the machine separately, and when they put it all together, it didn't run smoothly—the first time, the second time, and all the way up until the day of the exhibition, when it finally worked.

"We had to deal with failure," Whitely said.

The Virginia network, which is more than halfway through its two-year, \$202,500 grant, hopes to collect quantitative and qualitative evidence in the fall that this type of assessment is improving student outcomes.

Meanwhile, the Assessment for Learning Project plans to introduce a new grant program soon for its existing grantees. The goal of the second grant will be to fully integrate these assessment reforms into education systems' operations, said Lench, its director.



Students attending Hidden Valley High's exhibition take in the Rube Goldberg machine. Teachers credit such end-of-year projects with helping to increase student engagement in learning.
—Stephanie Klein-Davis for Education Week

Vol. 36, Issue 32, Pages 7-10

Published in Print: May 24, 2017, as **What Happens When Students Are the Test Designers?**