



## **Assessment Tool Raises Student Performance, Helps Teachers Plan**

*Eon Verrall, assistant superintendent, Charter School for Applied Technologies*

Tyrone couldn't believe his eyes.

He had just received the results of his first earth science assessment for the year and was shocked. Tyrone—a 10th grade student at the Charter School for Applied Technologies (CSAT) in Buffalo, NY—scored a dismal 16 out of 100.

“I didn't even think it was possible to score a 16 on a test,” he recalled. “I knew I was struggling. I knew I wasn't really following what (teacher) Mr. Black was saying. I just didn't think I could ever do that bad.”

The sad truth is that in classrooms throughout the country, there are thousands of students like Tyrone who are struggling and not following what their teachers are saying. In most cases, the problem grows: The students grow increasingly frustrated and disinterested, and they either quietly fall between the cracks and fail or, worse, act out and disrupt the entire class.

Thanks to an effective marriage of technology and educational best practices at CSAT, this simply doesn't happen to many of the school's 1,650 K-12 students. School officials and staff have developed a cyclical, data-driven teaching process that has resulted in tremendous student achievement gains.

Based on team teaching, a synergistic collaboration of educators, this approach consists of four steps:

1. **Create units based on standards.** Teams work together to develop and plan instruction units based on the state standards that are deemed to be priority or power standards. The prioritization recognizes that not all standards are created equal and that some should be focused on while others are merely touched upon.
2. **Create common formative assessments.** The journey is not as important as the destination. Teachers are encouraged to teach the material in whatever way they think is most effective, as long as their students demonstrate mastery of the standard(s). Common formative assessments measure their progress.
3. **Give the assessments.**
4. **Collect data and meet to review it.** Teams gather after the assessment data is collected and analyzed. Discussions center on the results: What is being understood and why? Teachers are encouraged to share their successes and failures based on how their students are doing. From there, strategies for assisting those students who are falling behind are created and monitored.



When CSAT's teachers and administrators first sat down to create this process, they set out to locate a cost-effective tool that could be used to measure and report on the assessment data. Their search proved to be a lot more difficult than expected.

"Doing all that would be asked of our teachers once we adopted our new approach was to ask too much," said J. Efrain Martinez, superintendent of the three-school CSAT campus. "And although we knew what we were looking for in a data-collection tool, we just couldn't find one that suited our needs perfectly and was cost effective."

### **A tool is born**

The solution ended up being right in the school's own backyard. A CSAT staff member took on the daunting task of developing a program from nothing. A few months later, eDoctrina was born. What started as a tool to provide educators with formative-assessment data has evolved into software that helps teachers and district personnel with unit or lesson planning and curriculum mapping, standards prioritization, specific, measurable, attainable, realistic and timely goal setting, and even establishing the fundamentals of assessment for learning and response to intervention practices.

CSAT's use of eDoctrina, coupled with the fundamentals of its approach, has led to impressive and sustained gains in student achievement on state assessments—as much as a 70% increase in seventh-grade math and a 98% (250 of 255 seniors) high school graduation rate over the last three years. That's not bad for a school with a student population that is primarily underprivileged (82% of students receive free or reduced-price lunches)—a demographic group, that, nationally, has an abysmal high-school graduation rate.

"Being able to see exactly what my students are understanding and not understanding makes a huge difference in my ability to meet their needs," said second-grade teacher Marissa Vuich. "Formative assessments allow me to collect data, and eDoctrina allows me to be able to read and understand it. This way, the path to success for each student is clearly laid out. I don't think there's any doubt that this process gives our staff and our students every opportunity to succeed."

Students like Tyrone.

"When Tyrone's low assessment score showed up in eDoctrina, it put him on my radar screen immediately," said Torrey Black, CSAT's earth science teacher. "In fact, the very next day, he was placed into intervention, where I could work with him and a handful of other students who were struggling with the same standard."

### **Rising test scores, gaining confidence**

The small-group work helped Tyrone gain some much-needed confidence and kept him from simply tuning out. His formative assessment scores rose from 16 to 40, then to 60 and



finally to 72. He wasn't alone: As the state's end-of-the-year assessment—the Earth Science Regents Exam—approached, numerous students, eager to improve, were actually volunteering to be pulled into intervention time.

“I was happy with how I progressed,” Tyrone said. “I was gaining confidence, and I began to feel that maybe earth science wasn't a complete loss for me. I don't think any of us in intervention would've made it without having the chance to practice the things we just weren't too good at.”

Using eDoctrina, Black was able to break up the students taking part in intervention periods in efficient ways that helped them stay engaged. Students who had difficulty with certain standards were separated from those who struggled with others. For example, the students looking to improve their grade from 80 to 90 were separated from the students just trying to get a passing grade.

Of course, Tyrone's story has a happy ending. The student who scored a 16 on the first exam of the year—the one who could've easily decided he was never going to understand earth science, and the one who could've spent the rest of the year failing assessments and pouting about it—did something unexpected. He excelled and scored an 80 on the Earth Science Regents Exam.

“If we didn't do things the way we do things—if we didn't have eDoctrina—the future isn't too hard to predict,” Black said. “Tyrone's confidence is shot. He fails his Regents. He probably has to take earth science again, possibly in the summer. And, who knows—maybe the lost time sets him back as far as graduation. But that's not what happened. Tyrone's story ended up being a success story because of things he never even saw: a data tool and a process that refused to let him fail.”

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*CSAT is the largest charter school in New York State, serving more than 1,650 students in grades K-12. Its name is a bit of a misnomer in that it is not one school, but, in fact, a campus made up of three distinct buildings: elementary (K-6), middle (7-8) and high schools (9-12). Serving a student body made up of primarily urban (86% reside in the City of Buffalo) and underprivileged youths (82% qualify for free and reduced-cost lunches), the school has been lauded regionally and nationally for its ability to raise their levels of achievement. CSAT's younger students routinely post suburban-level scores on state English and math tests, while its high school has posted a 98% graduation rate over the last three years.*