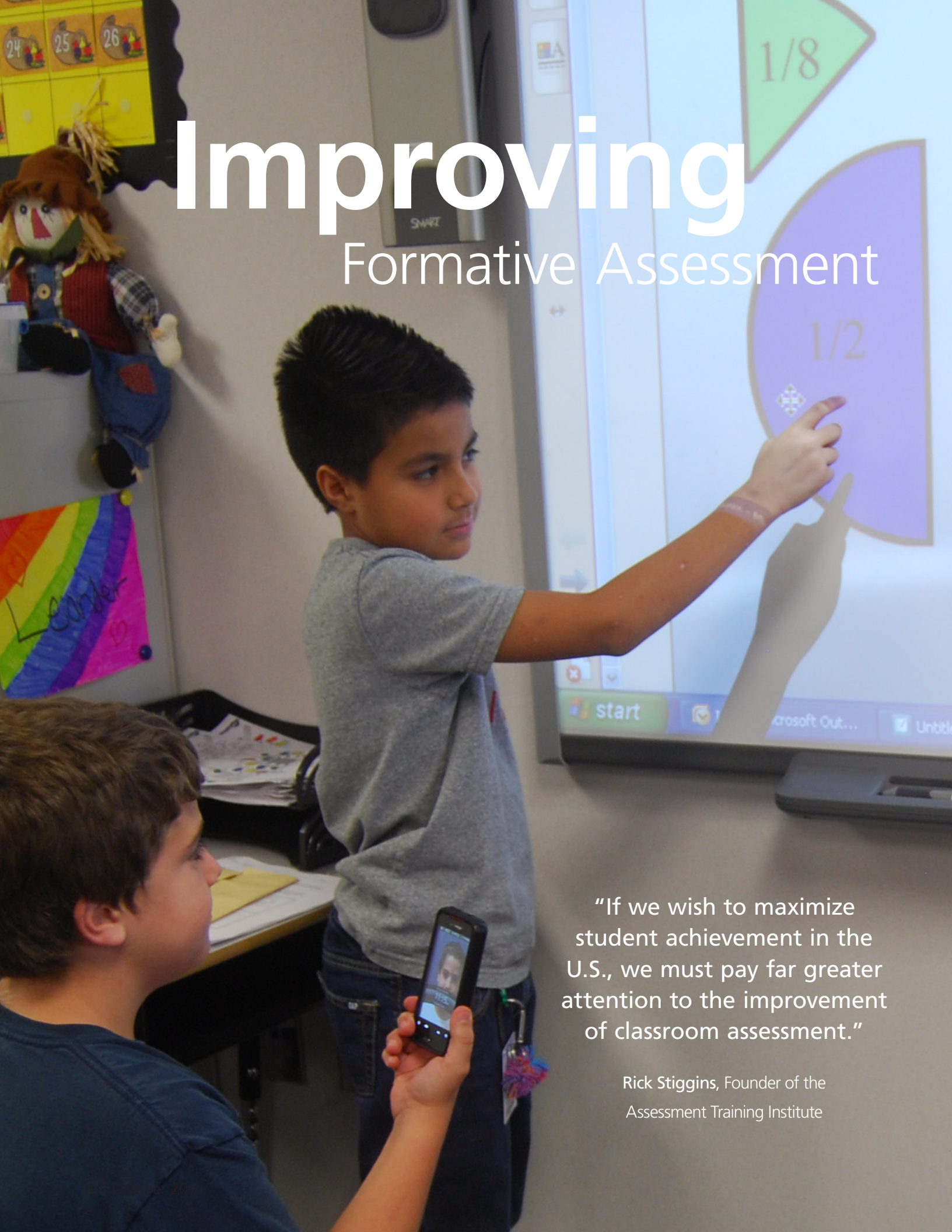# Improving
Formative Assessment

"If we wish to maximize student achievement in the U.S., we must pay far greater attention to the improvement of classroom assessment."

Rick Stiggins, Founder of the Assessment Training Institute

By Wendy McMahon

In a recent article, assessment expert, Rick Stiggins, founder of the Assessment Training Institute, explains that, "If we wish to maximize student achievement in the U.S., we must pay far greater attention to the improvement of classroom assessment."

While Stiggins believes both summative and formative assessments are important for schools, his work focuses on taking formative assessment to a new level, which he calls assessment for learning (as opposed to assessment of learning). Stiggins and others have found that improved formative assessment benefits teachers and students. Student achievement increases, students become more confident and are motivated to learn, while teachers are able to make decisions about instruction based on accurate data.

Thanks to research and articles from Stiggins, organizations like the National Council of Teachers of Mathematics and other assessment experts there has been an increase in awareness of the importance of formative assessment in classrooms. Many educators - and in some cases districts – are rethinking the way they assess students. And many of these educators are using the SMART Response interactive response system to support their assessment efforts.

The right assessment tools

In her past role as a math teacher for Ennis High School in Ennis, Texas, over 70 percent of the students Rafranz Davis worked with faced language, social and educational issues. She felt formative assessment was an essential part of her daily lessons because many of her students had previously been just getting by without being properly assessed.

Davis says when she received her SMART Response interactive response system, assessment became easier and more effective. "This was an assessment tool that I could incorporate in instruction and not have to worry about changing programs. It became a lifeline to my lessons," explains Davis. "Being able to tell right away whether or not they get it, whether or not my instruction is sufficient for them to be successful, that was a big deal to me."

Using her SMART Board interactive whiteboard, SMART Notebook collaborative learning software and her SMART Response system, Davis would repeat the same cycle during her classes: teach a little bit, do an activity with students and then quickly assess student understanding. Repeating the cycle until the end of class.

Asking the right questions

Throughout her lessons Davis uses a combination of planned assessments and ad hoc questions – ensuring her questions focus only on one specific skill. In the beginning Davis used question sets found on the SMART Exchange website, through EXAMVIEW and in classroom textbooks – until she had built a bank of questions to pull from. Ad hoc questions, which she used to do a quick check for understanding, were simply "Do you understand? Yes or no?"

"If all the colors of the pie chart were different. That would tell me nobody got it and we really need to talk about this. Then I would go ahead and do a quick run through again with the whole class on a specific skill. It wasn't a whole lesson that I had to teach, just a specific skill," explains Davis.

As Scott Miller explains asking the right questions means educators get the right information – information that helps inform instruction and ensure each student is mastering the required skills and concepts.

Miller, co-founder of Teaching With SMART Board, and Instructional Coordinator for the Math Department at Naperville Central High School in Naperville, Illinois says, his district has also embraced Stiggins' concept of assessment for learning

Miller says a major benefit to using the SMART Response interactive response system in the classes in his math department is the ability to tag questions. "Questions can be tagged to learning targets, learning standards and Common Core State Standards. That's fantastic, so now I have a set of standards to connect questions to," explains Miller.

Miller is then able to use the information he gains from those assessments in several ways. He can simply compare the results to the standard he was testing and design learning activities in SMART Notebook software that focus on areas of the standard where students need improvement or help. Or he can also give a similar assessment using the same standards tags and then review those assessments to look at student growth in that standard.

"Is the standard something that they're not growing on? Then what do I need to do as an instructor? Is the standard something that they've shown growth on and what did I design that helped them grow?" says Miller.

Davis agrees, she says question tagging, helped her assess how students were doing when it came to achieving Texas Education and Knowledge Skills (TEKS) objectives.

Each day Davis would give students warm-up questions that were tagged to the specific algebra or geometry TEKS objective students were working on that day.

"By the end of a week or two weeks we had a nice visual of how these students progressed by objective," explains Davis. She could see an overall picture of how an individual student, a class or all 140 students were performing on an objective.

This data also gave Davis a guide as to which skills she needed to reinforce with students and what she needed to address to help students succeed at their end-of-the-year exams.

"I knew right away without going through all kinds of other types of data that we had – my data was always consistent with where they were now. It wasn't something that was from 12 weeks ago. And so from there I could look at that and know which students I needed to target for more rigorous tutorials. And that was huge," explains Davis.

Benefits of assessing

One of the many benefits Davis sees as a result of assessing students with her SMART Response system has been that the instant feedback lets students see how they are actually doing and take ownership of their learning. Davis calls it "American Idol Syndrome".

"You can have a kid who is doing fabulous but they don't think that they are. And when they instantly see they're getting it – it builds that self-confidence within them to push further and go above and beyond," explains Davis. "On the other hand you have kids who really don't understand but either think they understand or are afraid to say they don't understand. As the teacher I can see that those issues exist and that gives me the knowledge to reach those kids in a different way."

Miller agrees, he says frequent use of the SMART Response system increases the confidence and knowledge of his students while decreasing testing anxiety. Using the system also allows his students to set learning goals and monitor their progress.

In her new role as a math strategist for Grand Prairie Independent School District in Grand Prairie, Texas, Davis says the student make-up

mirrors that of her old school - a lot of English language learners and a lot of students with varied backgrounds. As a result she feels assessment is hugely important in this new role and has brought one SMART Response system with her for teachers to use along with a subscription to SMART Response VE, which is designed for use on mobile devices. She is also in the process of purchasing more of this technology.

An administrator's view

At the district level, Lenny Schad, Chief Information Officer at Katy Independent School District in Katy, Texas, also sees the growing importance of formative assessments.

"You're going to have the big standardized assessments out there and those are certainly valuable, but I think from a teacher's perspective what is becoming more valuable is that instant feedback on the individual level of understanding in this class, right now on the subject that I'm teaching," explains Schad.

The district, which has standardized on SMART Board interactive whiteboards, has adopted the

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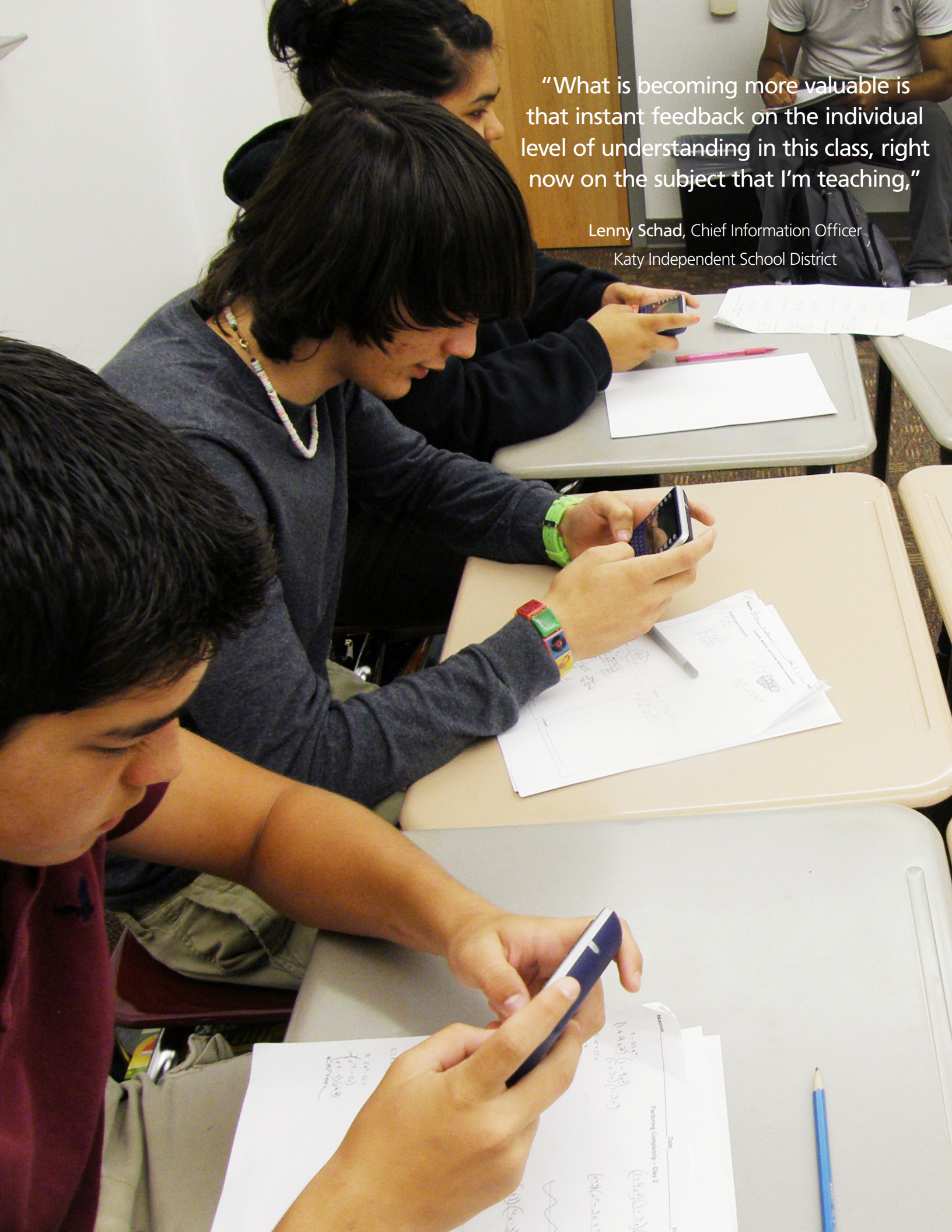
SMART Response VE system. Schad says the system is a natural fit for the district as they move into the fourth year of their mobile learning initiative, which has a strong Bring Your Own Device focus.

"What the SMART VE system really creates is this atmosphere of very quick and easy real-time assessment that a teacher can do which doesn't disrupt their class period totally. They can get it, they can review it, and they can make minor tweaks in what they're planning to do and then continue on with their lesson."

Schad says the SMART Response system and other web 2.0 tools not only help Katy ISD teachers assess students but they help differentiate learning and instruction for students.

"By integrating the web 2.0 tools we're allowing kids multiple ways to do their homework and to learn rather than just saying you have to do this on paper and pencil," explains Schad.

"I think that SMART is definitely ahead of the game. Mobile learning and Bring Your Own Device – I don't think it's a question of "if", I think it's a question of "when," explains Schad. "And SMART had enough foresight and preplanning to know that and they

came out with these products right as this whole transformation in education was starting to occur. Their products really are helping school districts in this transformational time as they look to change how instruction can be delivered. It's companies like SMART that really make it much easier for us to move down this transitional road."

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Resources

Scot Miller and his co-host Dave Sladkey dedicate episode number 79 of their podcast, Teaching with SMART Board to demonstrating how to tag assessment questions to a standard, whether you're using Common Core State Standards, specific state standards or district learning standards.

In this tutorial Rafranz Davis demonstrates how the create-answer-key function of the SMART Response system can save teachers time when it comes to classroom assessment.