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Caleb Courtney, senior high computer engineering teacher

Sarnia Collegiate Institute and Technical School

Sarnia, Ontario, Canada

Measuring up with the Senteo interactive response system

By Heather Ellwood

The pressure on K-12 teachers to better assess their students has increased with the federal government’s implementation of higher standards and focus on accountability. To that end, teachers are seeking out more reliable methods to provide that assessment. Many education experts believe that a focus on continuous evaluation and assessment means positive results for teachers, students and parents. In an environment focused on measuring achievement, administrators and teachers welcome any instructional invention that helps them to assess on a continuous basis. Enter SMART’s Senteo™ interactive response system. Fully integrated for use with the SMART Board™ interactive whiteboard and Notebook™ collaborative learning software, the Senteo interactive response system includes a class set of remotes, ergonomically designed for a student-sized hand, a central receiver and Senteo assessment software.

Caleb Courtney, a computer engineering and music teacher at Sarnia Collegiate Institute and Technical School, in Sarnia, Ontario, Canada, relies on the Senteo interactive response system because the students in his grades 10–12 computer engineering classes write a daily quiz on the previous lesson’s content. The flexibility of the Senteo system allows Courtney to ask different types of quiz questions, including true or false, multiple choice, numeric response and more-than-one right answer, which he imports right from his Notebook software lesson. The students’ scores can then be exported directly to Courtney’s database of marks and scores.

The usual downside of daily assessment, Courtney admits, is the copious amounts of marking. He says, “The longer you leave an assignment unmarked, the less of an effect it will have on student learning.” But with the Senteo interactive response system in Courtney’s classroom, the onerous task of marking daily quizzes has been removed from his to-do list. The interactive response system does it for him.

Courtney, like other teachers, understands that when assessment is done on a continuous basis, he has a fixed and constant bead on where his students are when it comes to understanding the curriculum. In his classes, he measures performance, knowledge, skills and achievement many times in the course of a unit of study, rather than just at the completion of the unit or at the end of the semester. When students are assessed as the content is being studied, and not weeks or months later, it is a more reliable marker for Courtney and his students and their parents.

The Senteo interactive response system also tracks student improvement over the length of the semester and, using Notebook software, Courtney generates a corresponding graph to include in each student’s progress report. The interactive response system makes the teacher’s additional duties and responsibilities associated with continuous assessment that much easier. As Courtney asserts, when it comes to assessment, more is definitely better than less.



Education researchers are inclined to agree with that notion, and, indeed, much investigation has been done on the positive effects of continuous assessment. Many teachers, like Courtney, believe it is the fairest and best way to assess the performance of an individual student.

In an article entitled, "Making Effective Use of Continuous Assessment and Portfolios," Henry Ellington, former head of the Centre for Learning and Assessment at Scotland's Robert Gordon University in Aberdeen, states that, "Continuous assessment helps students to become more self-critical and encourages them to attempt to master material as they actually work through a course or course unit, rather than leaving the real learning process to the very end."

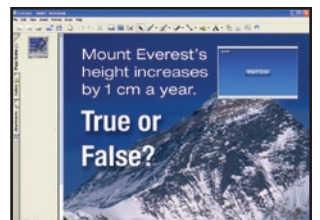
By conducting a daily quiz using the interactive response system, Courtney's students are given daily snapshot of their progress, letting them know what they need to focus on for homework and making them more responsible for their own learning. Additionally, it tells Courtney if review is needed before he moves on to the next concept.

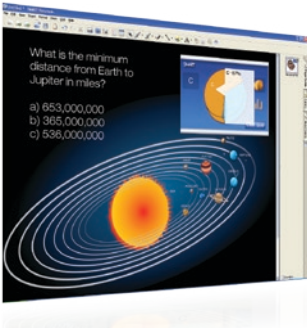
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Joanne Henning, a fourth-grade teacher of English language learners (ELL) at Glendale American School in Arizona's Glendale Elementary School District is on the same page as Courtney when it comes to the value of the Senteo interactive response system. Henning, who is responsible to teach all subjects to her ELL students, is especially challenged to keep them understanding not only the greater curriculum content, but specific grade-level language skills and vocabulary. Henning, much like Courtney, uses her Senteo interactive response system every day. Daily testing helps her keep informed of any students who might be lagging behind or finding a concept especially difficult to grasp.

When Henning felt her students didn't score high enough in her last two science quizzes, she broke her fourth graders into smaller groups for a content review session, making the students who scored the highest her science co-teachers. She gave each peer leader a copy of the test, and, using the Senteo interactive response system, the students worked through each question, all of them tutoring each other.

Henning explains, "I walked around from group to group, watched the language and concept building that was happening and listened to all the verbal vocabulary practice going on. It was great. Then, during the test the next day, I kept them in the same groups, each student with their own remote. The leader would read the question out loud and the students would log in their response. I found that after I put them in groups and let them work through these questions together, their scores went up. I think it helped them take more responsibility for their own learning, not to mention they were having fun at the same time."





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"One math class, for whatever reason, I was having technology difficulties, and I couldn't get the Senteo system to work. My students were so disappointed, so I tried again and I got it working. They were cheering because they got to do a math test on the Senteo. I've never seen that before."

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The benefits of the Senteo interactive response system go beyond improved test scores. Both Henning and Courtney found the motivation levels of their students rose substantially when they introduced the interactive response system into their classrooms. The excitement about the learning process is evident, they say.

Chronic student lateness is often an issue at high school level, and Sarnia Collegiate is no exception. But in Courtney's computer engineering class, the first on the timetable each day, tardiness has been eliminated, and he credits the Senteo interactive response system.

"I have never seen students so awake or eager at 8:00 in the morning. They are on time for class because they know there's going to be a quiz on the Senteo.... One day we worked purely on lab work and hadn't learned any new theory, so I didn't prepare new questions for the quiz the following day. The students were upset that we weren't going to be able to use the remotes, so I quickly inserted a few questions into the Senteo, based on our lab work, and we had a quiz," he says. He adds that the desire to achieve has been planted in all of his students, and the fear of tests has been all but eliminated.

In Henning's classroom, gone are the sweaty palms and palpitating hearts that the word *test* used to bring about. Her students, she says, view the interactive response system as a reward for good behavior.

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Cheering for a test? Senior high students arriving to a first period computer engineering class early? A plethora of assessments upon which to base a term mark? And all-in-one-technology tool that achieves all of the above? SMART's Senteo interactive response system more than measures up in today's K-12 classrooms, allowing teachers to continually measure and quantify student learning. As a result, teachers can more effectively gauge student progress and, subsequently, make better-informed instructional decisions supporting student growth. That's a situation that makes the grade for both teachers and students.