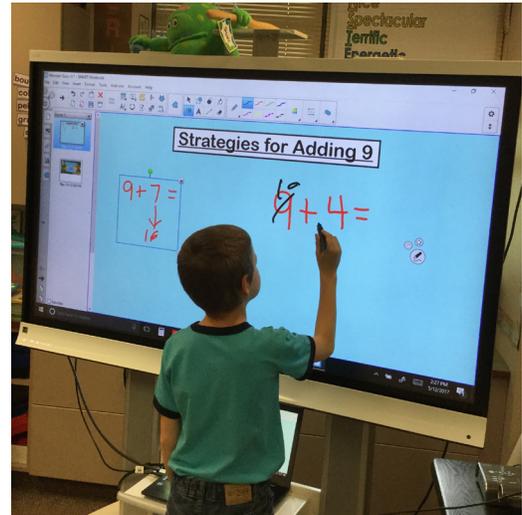




More Accurate & Focused Automaticity with Gamification: Using SMART lab to Increase Math Fact Fluency

A SMART Customer story with *Bob Young, 2nd Grade Mathematics Teacher*



Motivation: Increasing Automaticity in Math

Rolling Ridge Elementary School is a kindergarten through 6th grade school consisting of 515 students in the Harbor Creek School District, in Erie, PA. The school was recently recognized as a Title I Distinguished School from the Pennsylvania Department of Education for scoring in the top five percent on the Pennsylvania System of School Assessment of all Title I schools in Pennsylvania.

In order to target their students performance in math, the district set a goal for >80% of their 2nd grade students to answer 90+ addition and subtraction problems within three minutes. When a student can answer a math fact without having to think about it, they reach automaticity, which allows their brain to build upon those automatic skills to tackle more complex problems.

Bob Young's students had been using a worksheet-based math program to practice and improve their math fact automaticity since the beginning of the school year. But throughout the year, Bob noticed a lack of focus, along with minimal improvements of automaticity. He had to redirect several students daily, to help keep them focused on practicing their math facts.

In contrast, he noticed a high level of engagement when using SMART lab's Monster Quiz in some of his other lessons. He therefore chose to use gamification for his math fact exercises, in order to help his students stay focused and motivated.

Teachers and School

Bob Young, 2nd Grade Teacher
 Rolling Ridge Elementary School
 Harbor Creek School District, Erie, Pennsylvania

Challenge

Students struggled with demonstrating automaticity on addition and subtraction math-facts due to a lack of engagement in daily practice exercises.

SMART Solution

SMART Board 6000 series Interactive Display
 SMART Document Camera 330
 SMART Audio Ceiling Speakers
 SMART Learning Suite (*SMART lab*)

Result

Integrating the SMART lab gamification activity Monster Quiz helped students become quicker, more accurate, and more focused on the learning of their addition and subtraction math facts.



Increased Focus & Excitement with Gamification

SMART's Monster Quiz helped Bob's students become quicker, more accurate, and more focused on the learning of their addition and subtraction math facts. Each activity they played kept his students engaged and on task. It became a great challenge for them to increase their quickness and accuracy, all while competing with their peers.

These daily Monster Quiz challenges motivated his students, and helped them achieve tremendous gains in their math fact automaticity. Bob feels that SMART Learning Suite was integral in doubling the number of students making the district goal in just one month's time. This resulted in the highest number of students ever making the district's goal in his classroom to date.

Outcome: Quicker & More Accurate Math Skills

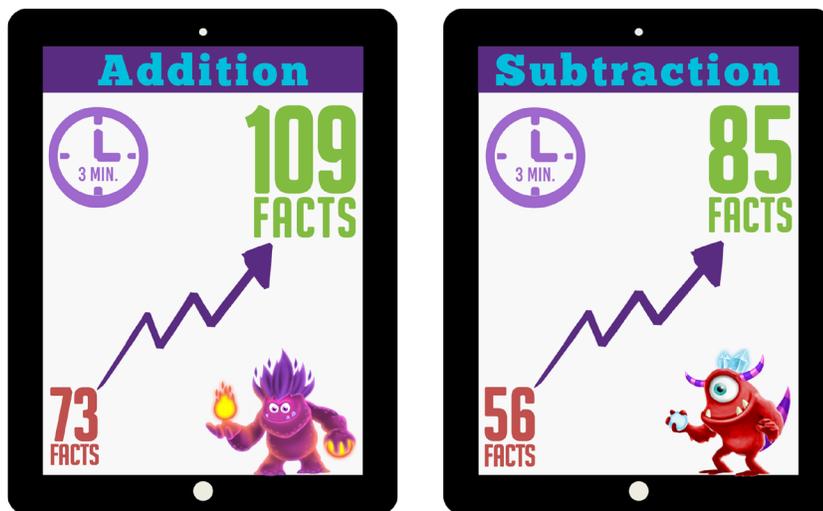
Bob observed that his students were highly engaged and focused during each Monster Quiz activity. They were excited to share their problem-solving strategies with their peers. They often cheered for and motivated their teammates to answer questions quickly and accurately to hatch their monster first. They even asked to play Monster Quiz, and looked forward to practicing their math facts each day.

Bob feels the use of gamification had a significant impact on his students' learning. His average student was able to answer 36 more addition facts, and 29 more subtraction facts in three minutes. This resulted in a 55% increase in addition facts, and a 69% increase in subtraction facts. He attributes this to his students discussing their strategies, and practicing math facts in Monster Quiz on a daily basis.

"Get ready for students to get excited about learning with SMART's Monster Quiz, where all students are focused from start to finish!"

About SMART

SMART Technologies Inc. is a world leader in simple and intuitive classroom technology solutions. We are an innovator in software and interactive technologies that enable natural collaboration, helping every student and teacher discover and develop their greatness. To learn more, visit smarttech.com.



■ **BEFORE Integrating Monster Quiz**

■ **AFTER Integrating Monster Quiz**

SMART Technologies

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