SMARTBoards in Elementary Schools

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Our Research Supports

- Quality, Ongoing Professional Development
- Gains in Student Achievement
- Complete integration and readily accessible use of the SMARTBoard
- Placement of SMARTBoard in classrooms

Quality, Ongoing Professional Development	Source
Teachers with 20-30 months of training = 20% percentile gain in scores	Marzano 1, 2009
Teachers with 2 years of training & utilizing technology 75% of time = 29% increase in scores	Marzano 1, 2009
Highly Effective Professional Development • Collaborative, Comprehensive, and Ongoing • Focus on Subject Matter • Teacher Driven and Classroom Based • Active and Hands On • Focused on Student Outcomes	DuFour, 2009

Student Achievement	Source
In one study of 85 teachers, ½ teaching with SB; ½ traditional tools, there was an immediate increase of 17% in scores.	Marzano 1, 2009
Of 3,152 students in grades 3-8 in LA, 47% used SB and outperformed students on the Ohio Achievement Test of Reading as compared to grade level peers in grades 4, 5, 6, and 8.	Swan, Schenker, & Kratcoski, 2006-07
Of 3,192 students in grades 3-8 in MATH, 43% used SB and outperformed students on the Ohio Achievement Test of Math as compared to grade level peers in grades 3, 4, 5, 7, and 8.	
"MAP test study revealed that Jennings School District, along with 6 others, all of which are eMINTS schools, have succeeded in raising student achievement with the state's professional development and other technology initiatives...they have also increased their state test scores more quickly than their peers in the state."	School Administrator, 2005

Curriculum Integration	Source
In Swan's study of 31 Ohio teachers using SMARTBoards in math, students scored above the mean on standardized test when used and average of 4.7/week as compared to students scoring at or below the mean when used 3.1/week.	Swan, Schenker, & Kratcoski, 2006-07
In Swan's study of 35 Ohio teachers using SMARTBoards in Language Arts, students scored above the mean on the standardized test when used an average of 4.6/week as compared to students scoring at or below the mean when used 2.9/week.	
In a Marzano study of 79 teachers, K-12 in 29 cities in 19 states, there was an average gain of 13.9% in subject matter content taught by their teacher using interactive whiteboard technology.	Marzano 2, 2009

Math	Source
Of 92 elementary math students, an average score gain of 20.76 points using SMARTBoards as compared to control group average gain of 11.48 points.	Zittle, 2004
"Teachers whose students scored above the mean on standardized math tests were more likely to use SMARTBoard interactively and to focus SMARTBoard activities on visualization of concepts and processes, most especially problem solving."	Swan, Schenker, & Kratcoski, 2006-07
"Perhaps even more so than in math, the contrast between teachers whose students scored above the mean on standardized assessments and teachers whose students scored at or below the mean seemed to be between student-centered and teacher-centered uses of the whiteboards."	Swan, Schenker, & Kratcoski, 2006-07
The level of teacher understanding of integration and effective use of the technology in math has a direct impact on student's stimulated learning through participation and understanding.	Miller, Glover, & Averis, 2002-2004
2006-07: A 3rd Grade class of 20 math students; baseline math score on participants pre-test score was 52.4%. Post-assessment average after 1 year of SMARTBoard integration was 80.8%; *100% of students* passed the Ohio Achievement Test for math that year.	Oleksiw, 2006
In a 1st grade classroom in Wichita, KS, SMARTBoard technology was integrated everyday in math. A pretest/posttest design was used. The control group was a 1st grade class at the same school with a similar student population.	Clemens, Moore, & Nelson, 2001

	Growth of SB Class	Growth of Class w/o SB
Problem Solving (4 points)	1.4 points	0.9 points
Coin Combinations	63%	44%
Coin Values	48%	14%
Time to the Half Hour	86%	68%

Effectiveness of Implementation	Source
"Can't just give it to a teacher, weaker teachers require professional development in the use of the boards AND effective teaching."	Marzano 1, 2009
"Statistically, this (see above) strategy only works if there is a clear focus on content."	
Students are social learners needing active learning, constructivism, and whole-class teaching; common thread of these 3 is student engagement; international research proves SMARTBoard promotes student engagement.	SMART Technologies, 2006
An 18 week study showed 81% (7 out of 9) early childhood students w/ disabilities were on task during a 30 minute SB lesson, whereas 5 of 9 were on task during a 30 min. 'traditional' lesson.	Clark & Nordness, 2007
"Initial planning is critical to the successful implementation of technology in the classroom. Technology is often taught solely as a separate class in the computer lab. It should be an underlying theme in all teacher units."	Huck & Schmitz, 2007