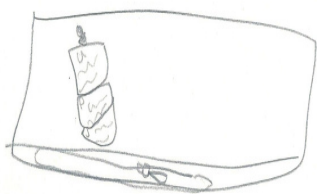


# First Year (2007-08) Evaluation Results

# enVisionMATH

Prepared by PRES Associates, an Independent Research and Evaluation Firm

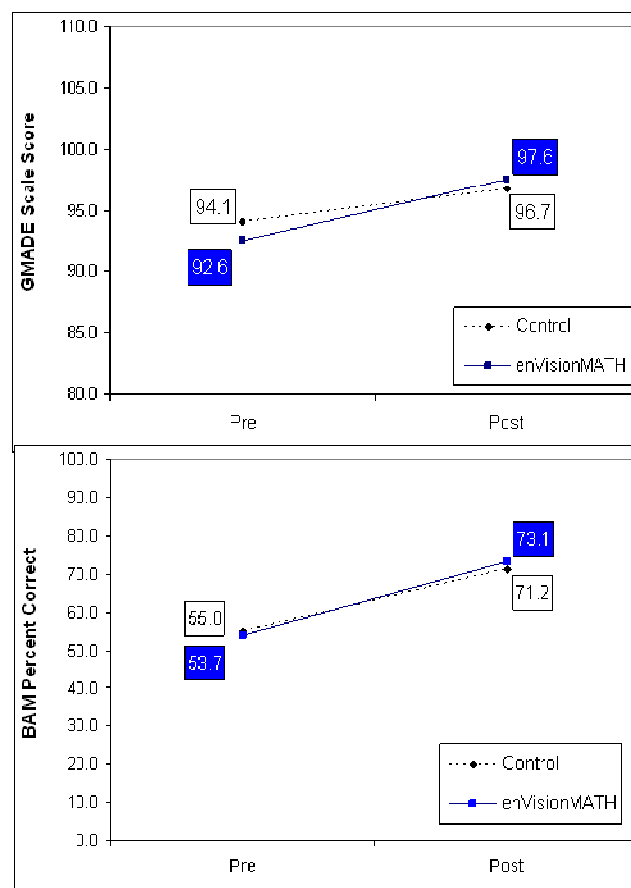
My favorite thing about first grade is Math. It is because we do math stories. All so because we do visual bridge. We learn looks of new things that way. We all so use ups. It helps us with math.



Drawing from enVisionMATH student.  
(UPS=Understand, Plan, Solve)

**Students who used enVisionMATH showed significant improvement in math performance. Moreover, enVisionMATH students showed greater gains in math skills and knowledge as compared to students who used other math programs.**

The figures show the results obtained for the Group Mathematics Assessment and Diagnostic Evaluation (GMADE) and Balanced Assessment of Mathematics (BAM) assessments. Results show that students using enVisionMATH demonstrate more improvement in math performance as compared to students not using the program. Specifically, despite starting out at a lower math level (see pretest scores), enVisionMATH students subsequently *surpassed* control students in the areas of math vocabulary (GMADE) and mathematics problem-solving and communication (BAM) during post-testing.



**Higher implementation of enVisionMATH related to greater student gains in math.**

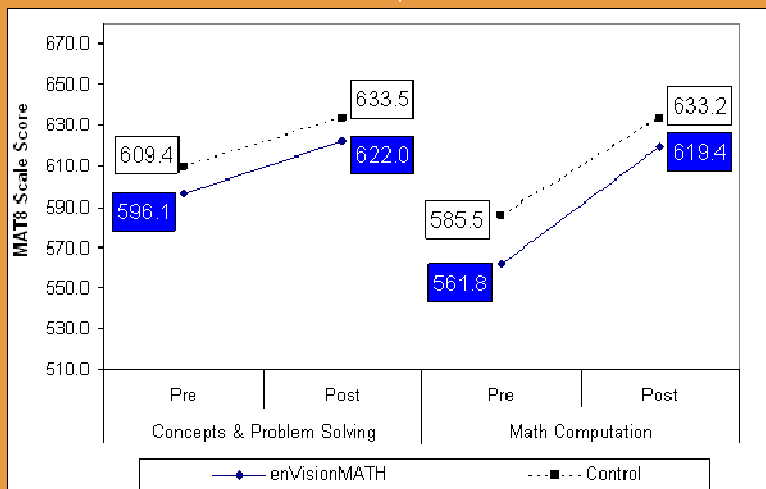
There was a positive relationship between level of implementation of the enVisionMATH program and growth in student math performance. Students whose teachers implemented the major components of enVisionMATH with high fidelity showed greater improvement than students of teachers who implemented enVisionMATH with low fidelity and did not use the major program components on a regular basis.

In order to better understand the effects found as a result of exposure to enVisionMATH, effect sizes were calculated which provide a measure of the degree to which there were important differences between treatment and control groups in terms of student math performance. Effect sizes ranged from .20 to .24. While small, these effect sizes are both significant and educationally meaningful – especially given the short duration of the study and the applied settings in which the study was undertaken. Given that this study will continue into a second (2008-2009 school year), larger effects could be expected if such trends continue and students are exposed to enVisionMATH for even longer periods of time. If the effects observed are translated into the percent of enVisionMATH students that can be expected to be *above* the average of the control group, 58%, 59%, and 58% of students using the enVisionMATH program are more likely to have scored above the average of control students in the areas of math vocabulary, problem solving and communication of math, and math computation (see next page).

In addition to greater gains in math vocabulary, problem-solving and communication, enVisionMATH students also showed more improvement in math computational skills as compared to students not using enVisionMATH.

Students were also administered the Metropolitan Achievement Test (MAT8) which allows for an in-depth examination of the following two math areas: (1) Math Concepts and Problem-Solving and (2) Math Computation. Results showed that enVisionMATH students

demonstrated more improvement in math computation than control students, despite having lower computational skills in the Fall. That is, the enVisionMATH students are catching up to control students.



## About the Research Study

PRES Associates, an external, independent educational research firm with over fifteen years of experience in applied educational research and evaluation, has recently completed the first year of a two-year study (2007-09) on the effectiveness of the 2009 Pearson enVisionMATH among elementary students. This study consists of a randomized control trial (RCT) that was designed to fully address scientific quality criteria.

The purpose of this RCT is to rigorously evaluate the effectiveness of the 2009 Pearson enVisionMATH

program in helping elementary students attain critical math skills. The design of this evaluation relies on pre- and post-test measures utilizing both quantitative and qualitative research methods to collect data on multiple levels. For the first year, the final student sample consisted of 1197 students (589 treatment, i.e., enVisionMATH students; 608 controls, i.e., students using other math programs) in the 2<sup>nd</sup> and 4<sup>th</sup> grades spread across eight geographically diverse schools in suburban and rural communities. Teachers were randomly assigned to treatment and control conditions.

## What did enVisionMATH teachers think about the program?

*“Overall I think it’s a really great program. I love that it combines so many different resources as far as manipulatives and technology and it has so many visuals within the book and uses so many references to everyday life because so many textbooks that I’ve used before don’t.” - 4<sup>th</sup> Grade Teacher*

*“I love it. I can see where it helps the children to have the higher level thinking skills, and the way the questions are asked and the math is presented is not typical...it is more like the way I feel they will see it on end of grade tests or standardized test. It goes hand in hand and uses the terms they will have on the test.” - 2<sup>nd</sup> Grade Teacher*

*“I have one student that I worked with in third grade that would be classified as an ‘at risk student’ and that particular student has thrived with enVisionMATH; something has clicked and just really worked well.” - 4<sup>th</sup> Grade teacher*

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