



DESTINATION

imagine



discover



SUCCESS STORY >

DESTINATION MATH® OUTPERFORMS TRADITIONAL TEXTBOOKS

The Situation

Desert Sands Unified School District in Southern California found that in two schools only 23 percent of 6th grade students scored at or above the 50th percentile on the math portion of the Stanford 9 test, compared to 46 percent for the district as a whole. A six-week research study was designed to compare the effectiveness of computer-assisted instruction to traditional instruction. Two classes from each school, a treatment group and a control group totaling 127 6th graders, were selected and matched for class size, student test scores, English proficiency, and the teachers' classroom experience.

Using the district's scope and sequence, the teachers selected fractions as the general topic, breaking it down into week-long units on specific concepts. Each unit was further articulated as a set of topics to be covered each day.

The control group (n=67) worked through these topics using traditional lecture, discussion and

practice methods. They met each day in their regular class-rooms, and supporting materials consisted of the district-selected mathematics text along with workbook exercises.

The treatment group (n=60) combined online computer learning using *Destination Math* with the off-line worksheets and student logs that come with the program. They met three days a week in the regular classroom, where a projection monitor was used for whole-group presentations and four computers in the back of the room were used for small group work. Twice a week, classes met in the computer lab where students worked individually with *Destination Math* tutorials and workouts.

Project Goals

1. Compare computer-assisted to traditional instruction
2. Increase test scores



Customer Profile

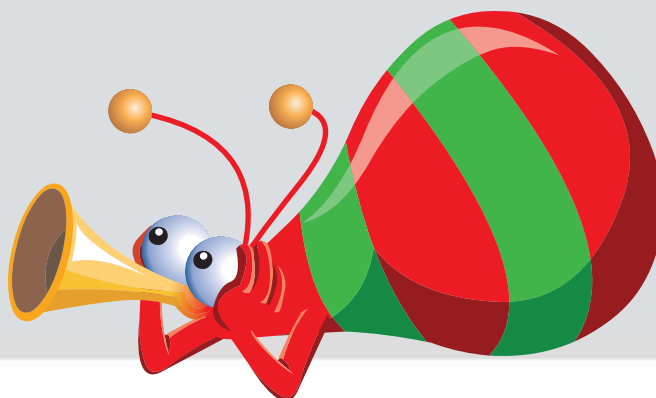
Desert Sands USD, CA
 33 Schools
 27,565 Students
 62.7% Hispanic
 26.9% ELL

Products and Services

Destination Math

Key Benefits

The treatment group using *Destination Math* improved at a greater rate than the control group using traditional textbook instruction



Solution

Destination Math was chosen for its breadth of subject matter, for its assessment capabilities and for its ability to individualize curriculum for students based on assessment results.

The Results

The analysis combined the data from the two treatment classrooms and the two control classrooms. The raw scores on the pre-test and post-test produced the mean gain score for each group. While neither group achieved mastery of all the topics, due to the short six-week duration of the study, a repeated measures t-test of this gain score determined that the treatment group outperformed the control group at a statistically significant level. This leads to the conclusion that when used effectively, *Destination Math* can increase student mastery of specific skills and concepts.

When schools ask, "Will *Destination Math* improve our test scores?" the real question is often, "Will *Destination Math* increase the rate of improvement over traditional learning methods?" In this study the

treatment group did learn at a faster rate than the control group, and this differential effect can be attributed to the use of *Destination Math*. In addition, teachers reported in daily journals that students in the treatment group were more excited about learning and more involved in class discussion.

Treatment Classrooms outperformed Control Classrooms at a statistically significant level

	Control	Treatment
Pre-test Raw Score	5.70	6.53
Post-test Raw Score	8.63	10.78
Mean Gain Score	2.93	4.25
Variance	9.34	19.31
Percentage Gain	51%	65%

A7385

© 2005-2008 Houghton Mifflin Harcourt Publishing Company. All rights reserved. Destination Reading and Destination Math are registered trademarks of Houghton Mifflin Harcourt Publishing Company.