

A Study of the Effectiveness of *Milestones*

2008-2009



This study was conducted by SEG Research, an independent educational research firm located in New Hope, Pennsylvania. SEG Research provides research, evaluation, and assessment services to educational publishers, educational technology providers, assessment service providers and government agencies. SEG has been meeting the research and assessment needs of organizations since 1979. This research was supported by a grant from Heinle.

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Executive Summary

Background and Purpose

During the 2008-2009 school year, SEG Research conducted a study of the effectiveness of *Milestones*, an instructional program designed to provide intervention for English Language Learners (ELL) and Struggling Readers. The study examined the growth in Reading and Language skills for 7th grade students enrolled in a summer intervention class at Sullivan Middle School, in Fairfield-Suisun, California. These students received instruction using *Milestones* (Treatment) and their Reading and Language proficiency growth was measured before and after receiving instruction using a post hoc, pre-post, treatment-only research design. Student Reading and Language skills were measured using the CELDT and CST (two required state tests in California).

This study investigated the following questions:

1. Do ELL students show significant gains in Reading and Language skills after receiving instruction using *Milestones*?
2. Do boys and girls receiving instruction using *Milestones* differ in their level of Reading and Language skills growth?
3. Do students of different ethnicities receiving instruction using *Milestones* differ in their level of Reading and Language skills growth?
4. Do students participating and not participating in free or reduced lunch receiving instruction using *Milestones* differ in their level of Reading and Language skills growth?

Study Design

Students receiving instruction using *Milestones* participated in an effectiveness study using a post hoc, pre-post, treatment-group only design. Student growth in Language and Reading skills was

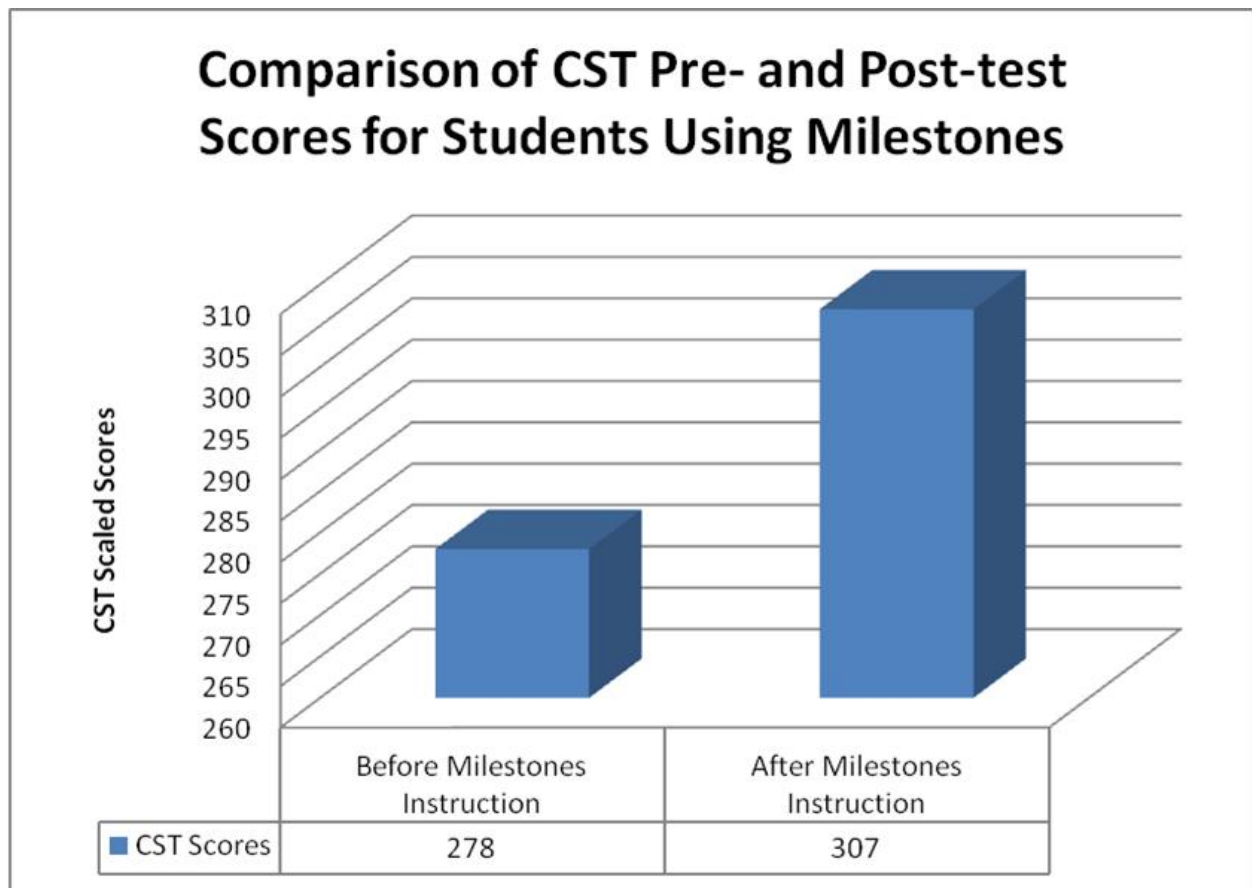
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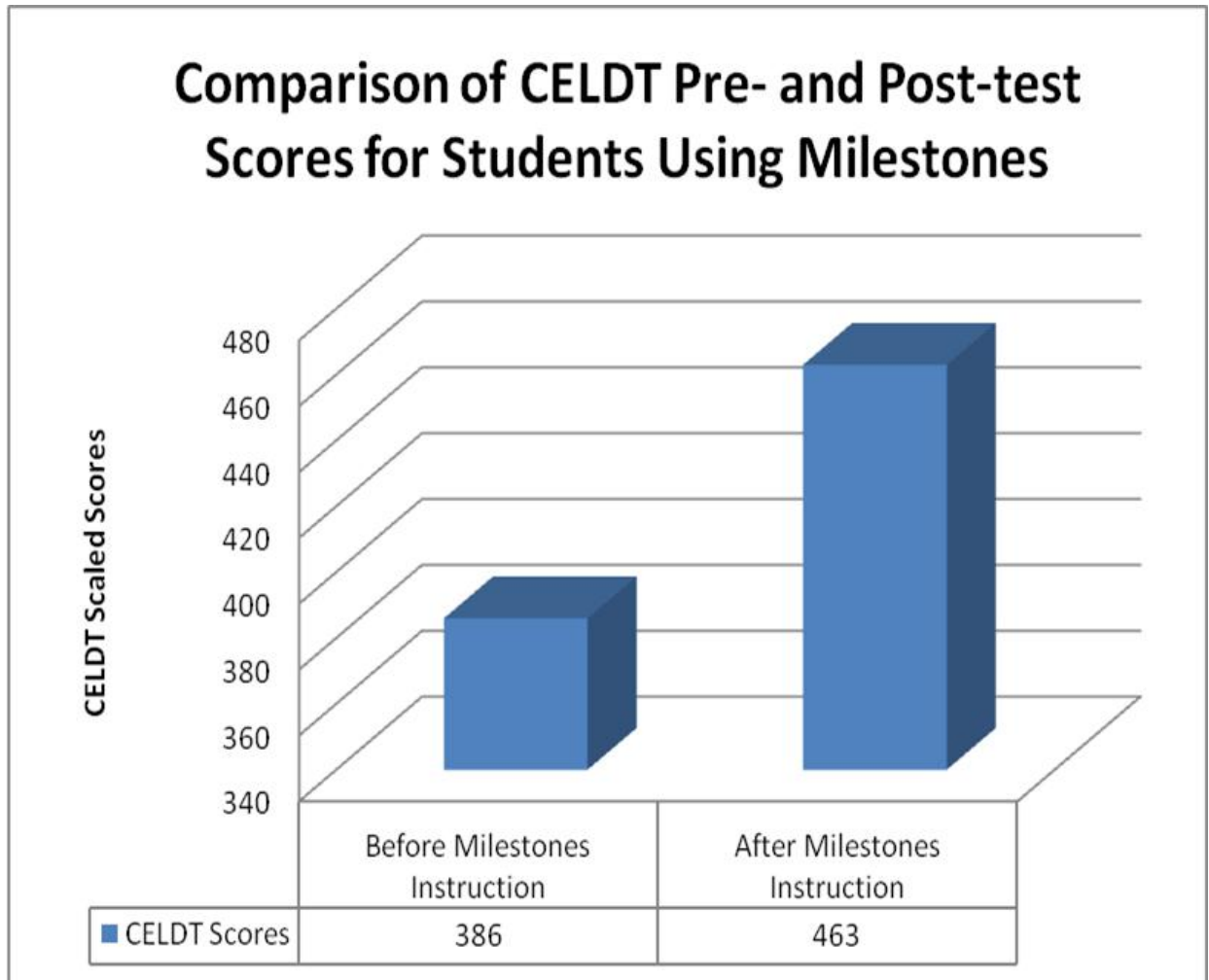
measured by comparing their proficiency at the beginning of instruction and again after receiving instruction. Students were administered the CELDT and CST as a pre-test prior to instruction and again after receiving instruction. Students received approximately 10 weeks of instruction between the pre-test and post-test. The pre- and post-test results were then compared statistically.

Findings

Pre-Post Growth

Students provided with instruction using *Milestones* showed substantial growth from pre- to post-test on both the CELDT and the CST. During the course of the study, students showed a statistically significant increase in both their CELDT and CST Scores. This increase is illustrated below.





To better understand the magnitude of growth for students in *Milestones* classrooms we looked at the “effect size”, a common metric that can be used to evaluate the amount of growth across studies, when different measures are used; the effect size for growth in CELDT scores was $+0.69$. The effect size for growth in CST scores was $+0.39$. This indicates that students provided with instruction using *Milestones* showed substantial growth in Reading and Language skills as indicated by both the CELDT and CST.

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Growth in Proficiency Levels

Based on the CELDT test scores, students taking the test are classified into one of five proficiency levels based on the California TESOL classifications: Beginning, Early Intermediate, Intermediate, Early Advanced and Advanced. Nearly two thirds (62%) of the students gained one proficiency level moving from Beginning to Early Intermediate or from Early Intermediate to Intermediate.

Gender, Ethnicity and Free and Reduced Lunch Analysis

We examined whether there were any differences in growth between male and female students, and between students who were eligible for free or reduced lunch and those who were not eligible.

There were no significant differences in CST post-test scores between boys and girls and between those students who were receiving free or reduced lunch and those not receiving free or reduced lunch. *Milestones* was equally effective regardless of gender or participation in free or reduced lunch. (There was insufficient data available to compute the analyses for ethnicity).

Student Sample

Twenty-four students enrolled in an intervention class using *Milestones* at Sullivan Middle School in Fairfield, California participated in the study. Table 1 shows the number of students comprising each gender, ethnicity, and free or reduced lunch category.

Table 1. Demographic Profile of Student Participants

Variable	Number (N) of Students	Percentage of Students
ETHNICITY		
Caucasian	3	7%
African American	6	14%
Hispanic and Other	15	36%
Total (All Ethnicity)	24	100%
GENDER		
Male	18	75%
Female	6	25%
Total (All Gender)	24	100%
FREE OR REDUCED LUNCH		
Receiving Free or Reduced Lunch	18	75%
Not Receiving Free or Reduced Lunch	6	25%
TOTAL (Receiving and Not Receiving)	24	100%

SUMMARY

The students using *Milestones* showed significant gains in Reading and Language skills after receiving 10 weeks of instruction. Students showed substantial increases in both CELDT and CST scores from the pre- to post-test and nearly two thirds of the students increased by one proficiency level. There were no significant differences in either CST or CELDT post-test scores for either gender or free or reduced lunch participation, indicating that *Milestones* was equally effective for all groups examined in the study.

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