

**Evaluation of TargetTeach[®] on
8th Grade Reading and Mathematics
Performance in the
Zion Elementary School District**

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In partnership with Arizona State University

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Abstract

Evans Newton Incorporated's TargetTeach® process was adopted by the Zion Elementary School District to raise student performance in reading and in mathematics. This study examines trends in students' mathematics and reading achievement levels before and for five years following the implementation of TargetTeach®.

The Zion District's data used in this study consists of 8th grade reading and mathematics scores on the Illinois Standards Achievement Test (ISAT). The average count is 290 students over the five years in which test scores are available. The 2003-2004 academic year was the baseline, pre-implementation year for reading and the 2004-2005 year was the pre-implementation year for mathematics. The post implementation years were 2004-2005 through 2008-2009. Student academic performance was examined as percent passing and the extent of change over time.

From the pre-implementation year to the end of the fifth year of implementation, the percentage of students passing in reading increased from 40% to 75%. In mathematics, the percentage of students passing increased from 22% to 68%. There has been an overall steady, and statistically significant improvement in percent passing during the post implementation of TargetTeach®.

Purpose

This study examines trends in students' mathematics and reading achievement levels in an Illinois K-8 school district. In 2004 the district contracted with Evans Newton, Incorporated (ENI) to help them with their alignment of standards, curriculum, and assessments. During the first year of implementation, the district focused on reading, and then added a focus on

mathematics in the second year. The process used by ENI is called TargetTeach®: its primary goal is to raise student performance in a targeted content area.

A number of districts have used TargetTeach® over the years to increase student achievement in the areas of mathematics and reading. The purpose of this research study and others conducted by Arizona State University researchers is to evaluate the schools' subsequent outcomes. The study gathered empirical evidence regarding the outcomes related to TargetTeach® implementation.

The current evaluation addresses 8th grade student reading and mathematics achievement in the Zion Elementary School District. The primary research question investigated is: Compared to their performance levels before TargetTeach® implementation, is there an increase in mathematics and reading achievement performance levels for students after the implementation of TargetTeach®?

Methodology

Data Sources

The district in this study is the Zion Elementary School District in Zion, Illinois. It is a small district of seven schools that serves nearly 3,000 students in grades PreK-8. The District is ethnically diverse, and impoverished. Black and Hispanic students comprise approximately 75% of the student population. Approximately 70% of students qualify for the national free and reduced lunch program.

The Zion District's data used in this study consists of 8th grade reading and mathematics scores on the Illinois Standards Achievement Test (ISAT). Six years of eighth grade student scores were examined. The 2003-2004 academic year was the baseline, pre-implementation year

for reading and the 2004-2005 year was the pre-implementation year for mathematics. Data for the five following years -- 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009—were used as the post-implementation years. All 8th grade student scores were used in the analysis. The number of participants were as follows:

	Year					
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Number of 8 th grade students in study	304	261	307	292	287	309

Design

To examine student performance differences over the years, variables included year and performance level. The state test uses four performance standards: Academic Warning (W), Below Standards (B), Meets (M), or Exceeds (E) standards. For this study, the performance data was dichotomized into two subgroups; namely, *below standard* proficiency (W or B) and *at or above standard* (M or E) proficiency. These performance levels were determined using the state guidelines for cut scores.

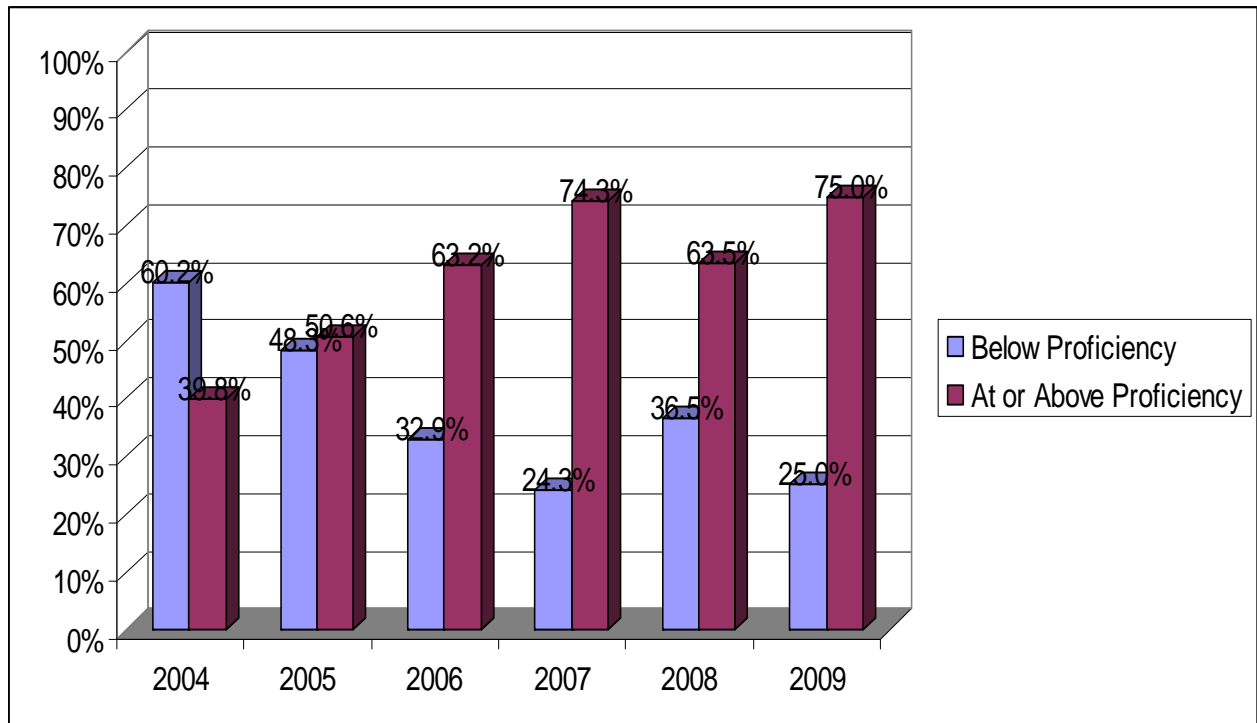
The analysis was conducted using a multi-year, cross sectional design. The analysis compares scores from the different students enrolled in the 8th grade during the years of study.

Academic performance is examined in two ways: 1) percent of students scoring in the *At or Above Proficient* compared to the *Below Proficiency* achievement levels by year, and 2) performance differences between the pre implementation to the post implementation levels of achievement using proficiency level as the outcome variable.

Results: Reading

Student data was arranged to show the percentages of 8th grade Zion students at/above or below proficiency in reading on the ISAT. As shown in Figure 1, compared to the baseline year, there is an apparent increase each year in the number of students at or above proficiency on the reading test.

Figure 1. Percent of 8th grade students scoring in the Below Proficiency or At or Above Proficient achievement levels on the ISAT 8th grade Reading Test from the 2004 to the 2009 academic year

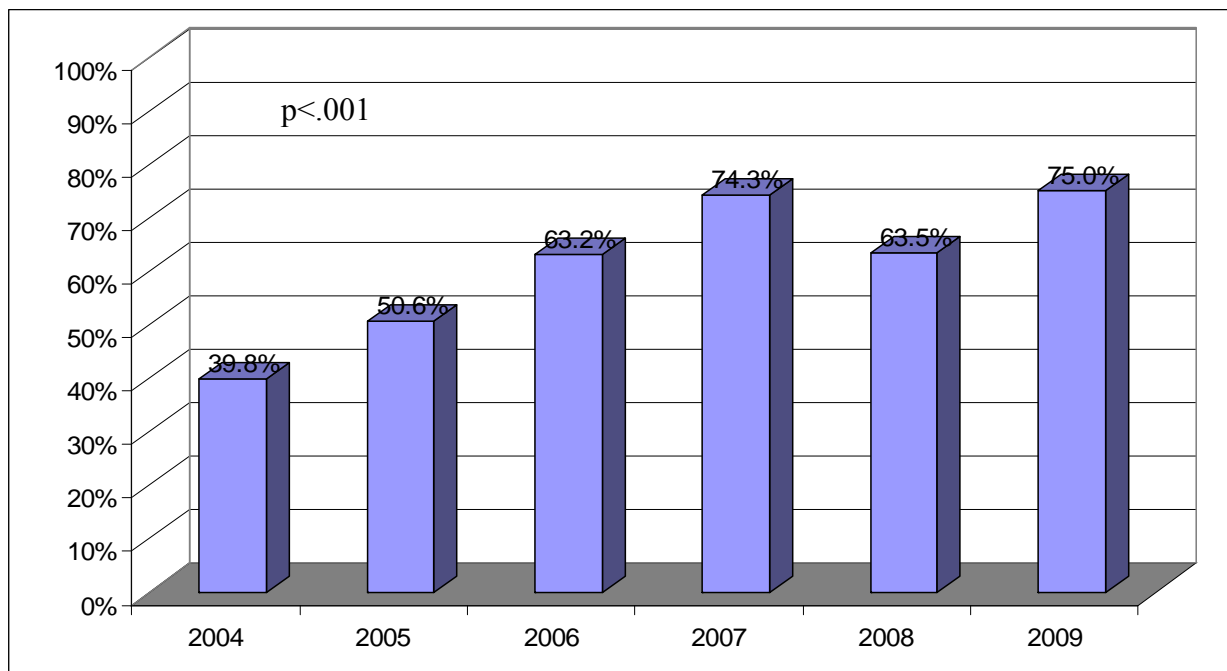


In the baseline year, 2003-2004, before TargetTeach[®] was implemented in the District, 60% of the 8th grade students failed to meet the state standards in reading. Only 40% of the 8th grade students were at or above proficiency. The percentage of students passing increased to 51% one year after implementation and continued to increase in each successive year: 63% of the 8th grade students were at or above proficiency in reading after the second year of

implementation and that number increased even further in the third year to 74%. By the fourth year of implementation, the percentage passing slightly declined to the 2006 level of nearly 64% passing. After the fifth year of implementation, the percent passing increased again to 75%. The overall percentage increase from the baseline year to the fifth year of implementation was a 35% increase in students who were able to score at or above the state level for proficiency in reading. Over the past five years, the average level of 8th grade reading proficiency was 65.3%.

Additional analysis was conducted to examine the relationship between the student performance levels, baseline (pre-implementation) to post-implementation. The results show that there was a statistically significant improvement in reading achievement from 2004 to 2009, $\chi^2(1) = 80.03, p < .001$. This growth is graphically represented in Figure 2.

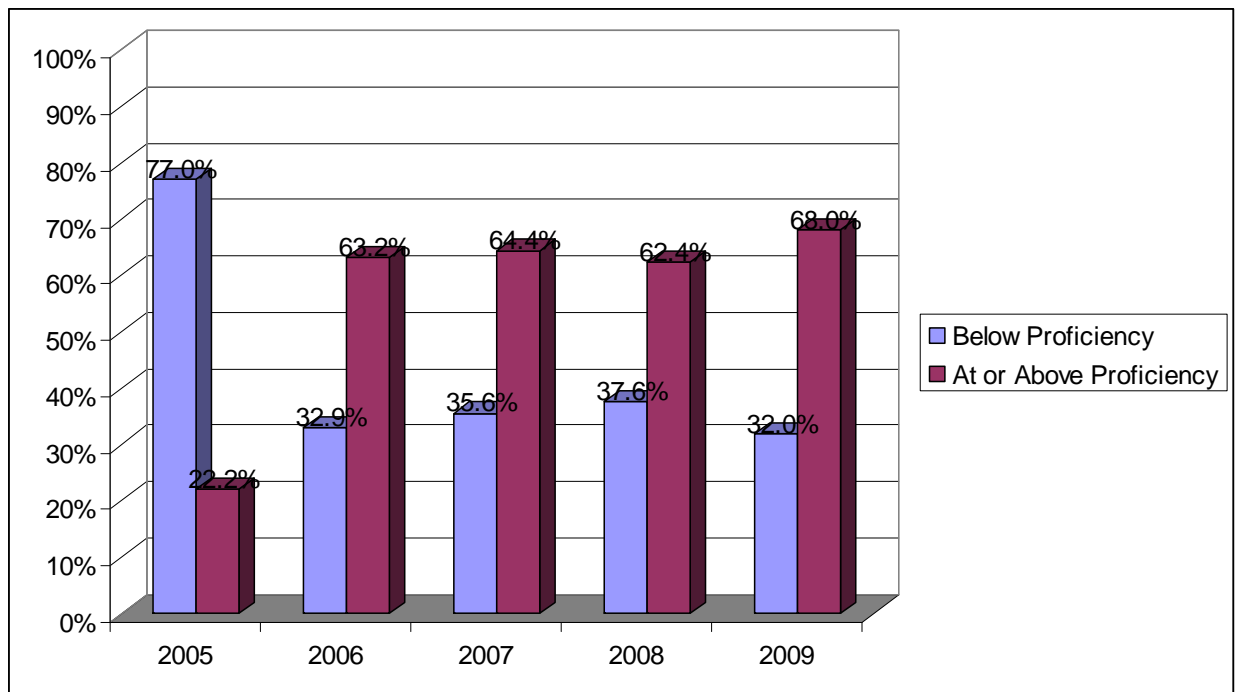
Figure 2: Percent of 8th grade students scoring in the At or Above Proficient achievement levels on the ISAT 8th grade Reading Test from the 2004 to the 2009 academic year



Results: Mathematics

Student data were arranged to show the percentages of 8th grade Zion students at/above or below proficiency in mathematics on the ISAT. As shown in Figure 3, student performance levels increased on the mathematics test after the first year of implementation and has remained relatively stable over time.

Figure 3. Percent of 8th grade students scoring in the Below Proficiency or At or Above Proficient achievement levels on the ISAT 8th grade Mathematics Test from the 2005 to the 2009 academic year

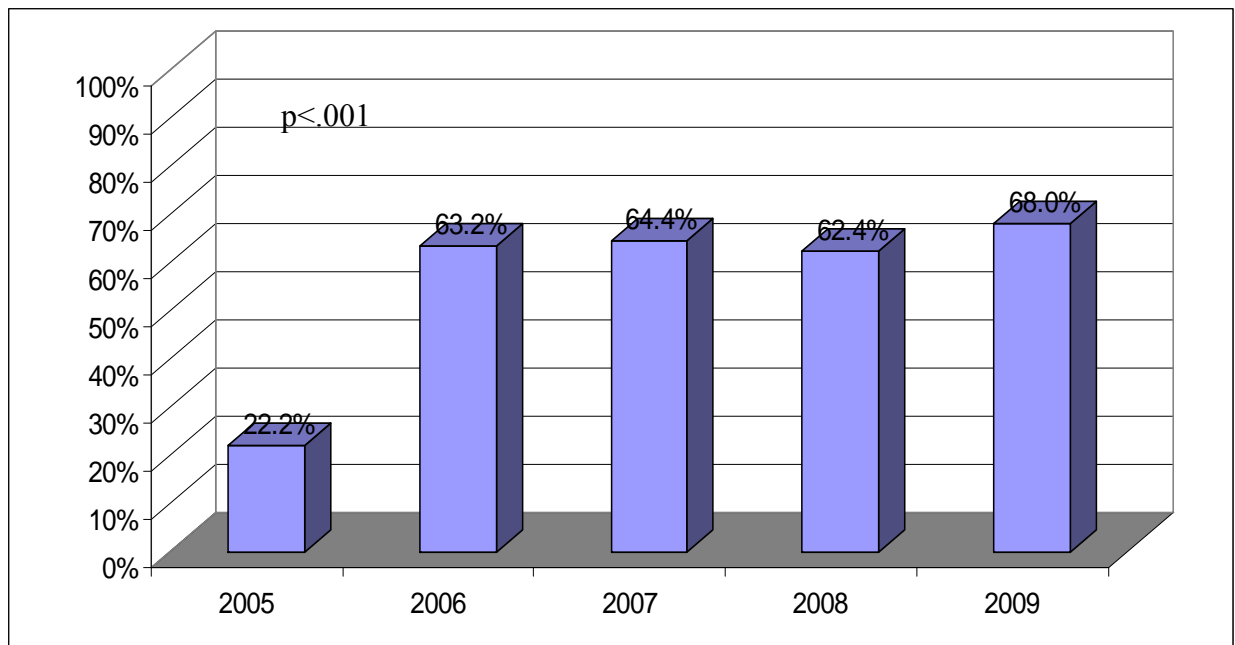


In the baseline year, 2004-2005, before TargetTeach[®] mathematics was implemented in the District, 77% of the 8th grade students failed to meet the state standards in mathematics. Only 22.2% of the 8th grade students were at or above proficiency. After the first year of implementation (2006), the percentage of students at or above proficiency increased to 63% of

the 8th grade class. At the end of the second year of TargetTeach[®] implementation, there was a very slight increase in percent passing to 64%. The number slightly declined in the 2008 school year to 62.4%, and then rose again to 68% of students passing after five years of program implementation.

Additional analysis was conducted to identify any differences in the percent passing from baseline (pre-implementation) to post-implementation. The results show that there was a statistically significant improvement in mathematics achievement from 2004 to 2009, $\chi^2(1) = 120.82, p < .001$. This difference is graphically represented in Figure 4.

Figure 4: Percent of 8th grade students scoring in the At or Above Proficient achievement levels on the ISAT 8th grade Mathematics Test from the 2005 to the 2009 academic year



Conclusions

The results presented demonstrate the performance of Zion students in the 8th grade over five different years. The study used the first year of data, achievement levels before the implementation of TargetTeach[®], as the baseline level. Five years of post-implementation data shows an overall progressive increase in student achievement after the implementation of TargetTeach[®] in reading and in mathematics. Student results from this analysis would indicate the effectiveness of the TargetTeach[®] process on significantly increasing student achievement levels in both reading and mathematics for the targeted schools.