

# District Mathematics Case Study #5/07

Dallas Independent School District  
Dallas, Texas  
(November 2007)

## Overview and Demographics

This was a Title-1 (SES) mathematics case study implemented by Dallas ISD. The study was conducted across four schools with a total of 189 students participating in the program. Twenty-two students dropped out of the program with 166 completing the program through the twelve week period.

	Students	Free/ Reduced Lunch	Limited English proficient	Special Education
Thomas Jefferson HS	1340	84.8%	36.0%	9.3%
Roosevelt Franklin HS	856	74.2%	5.4%	13.0%
Sunset HS	2148	70.8%	25.9%	8.7%
David Carter HS	1589	61.5%	4.4%	12.4%

## Case Study Summary

Schools: **4**

Scope: **Math competency improvement**

Subject: **Mathematics**

Target Grade Proficiency: **Grade 9**

Number of students in group: **189**

Number of students that completed program:

**166**

Case study timeframe: **12 weeks**

## Intervention Strategy

This was a Title-1 intervention program. 189 students signed onto the program delivered by a third party service provider and teaching staff from the Dallas Independent School District. The main aim for the District was to get the control group to pass AYP. To achieve this goal it was decided to focus on the areas where the students were the least proficient. The initial assessment was used to identify the six most deficient curriculum sub-strands in math for each student. The subsequent intervention would then focus on bringing each student to proficiency and therefore ensuring AYP. The district wanted to measure individual student progress as well as the aggregate improvement of the entire group. For this paper we only look at the mean aggregate scores and improvement of the total group. The intervention was structured around the IMTA solution firstly as a diagnostic tool and

then as an intervention tool by designing an individually customized remediation program for each student. Upon completion of the initial diagnostic assessment staff put an intervention strategy in place that could be duplicated at all four schools.

## Assessment

The students in the target group were put through the IMTA diagnostic assessment. There were no time limitations placed on the students to complete this initial assessment. The initial diagnostic assessment, for the group, was conducted over four 45 minute sessions in the first two weeks. Staff waited for all students in each school to complete the initial assessment. The table below shows that the mean aggregated scores for the target group in each school were comparable with the TAKS-M-1 grade 9 assessment. All four schools were performing below the Dallas ISD average.

TAKS-M-1/2007	Grade	School TAKS-M-1 score	Dallas ISD	Target group IMTA score
Thomas Jefferson HS	9	38.6%	41.2%	37.4%
Roosevelt Franklin HS	9	21.5%		18.6%
Sunset HS	9	34.3%		33.7%
David Carter HS	9	26.2%		25.3%

## Intervention

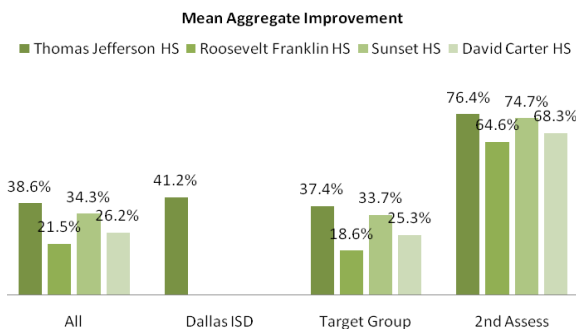
The intervention strategy ran over two 45 minute sessions per week for 10 weeks. Staff monitored student progress on a weekly basis during the eight weeks. Each student had access to a computer during these sessions. Each student's progress was dynamically tracked throughout the study. The intervention for this group was completed within 20 instructional days or a total of 15 hours.

Because the program ran across four schools, progress monitoring presented challenges in relation to keeping everybody on pace to complete the intervention within the 10 week timeframe.

The staff then conducted an assessment at the end of the 10 weeks to measure progress. The second assessment was independent of the first, covering the same curriculum content but with a different set of questions.

The table and figure below provide a summary of the aggregated results data.

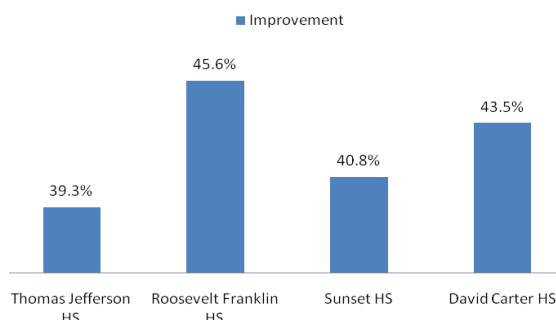
TAKS-M-1/2007	School TAKS-M-1 score	Dallas ISD	Target group IMTA score	2nd Assess
Thomas Jefferson HS	38.6%	41.2%	37.4%	<b>76.7%</b>
Roosevelt Franklin HS	21.5%		18.6%	<b>64.2%</b>
Sunset HS	34.3%		33.7%	<b>74.5%</b>
David Carter HS	26.2%		25.3%	<b>68.8%</b>



### Group-1 Results & discussion

The second assessment, after 10 weeks, showed a significant improvement. All the groups in each school showed a mean aggregate improvement.

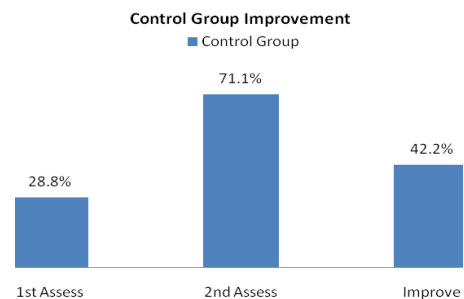
	1st Assess	2nd Assess	Improve
Thomas Jefferson HS	37.4%	76.7%	<b>39.3%</b>
Roosevelt Franklin HS	18.6%	64.2%	<b>45.6%</b>
Sunset HS	33.7%	74.5%	<b>40.8%</b>
David Carter HS	25.3%	68.8%	<b>43.5%</b>



While the improvement of the target groups in each school was exceptional, it needs to be noted that the intervention focused on the six most deficient areas of each individual student. The staff still feels that if this were done across the entire curriculum strand the results might drop by 4% to 8% still making all the gains impressive. The entire control group across all four schools showed an improvement of 42.2%. We recognize that the staff that ran this case study were effective and wanted to make sure that each hour spent was quality time.

The table and figure below provide a summary of the aggregated results data.

	1st Assess	2nd Assess	Improvement
Target Group	28.8%	71.1%	42.2%



### Conclusion

This district Title-1 intervention program was independently administered by a third party service provider and teachers from Dallas Independent School District. The improvement results showed the power of the EDUSS tool to truly identify student's individual competencies and then customize an automated intervention program to remediate the student back up to grade level. The results shown by the 166 students shows the efficacy of the EDUSS program's ability to both accurately diagnose and then remediate identified learning gaps on an individualized basis.