

# Academic Impact of the Ace it! Component of TEXAS AIM

## Preliminary Report

Submitted to

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### BACKGROUND

Rockman et al (REA), a nationally known research and evaluation firm based in San Francisco, CA, and Bloomington, Indiana, has been engaged by Sylvan Learning to evaluate the academic impact of the Ace it! program, offered by Sylvan Learning Centers across Texas in cooperation with local Boys & Girls Clubs, as part of the Texas Academic Innovation and Mentoring (AIM) program. Since 2009, more than 10,000 students have received after-school or summer Ace it! tutoring in mathematics and reading through the combined efforts of project partners.

This report summarizes preliminary findings on the program's impact on students' academic growth. Based on data from Sylvan's Ace it! data system, the report examines students' performance on one of two subject-area tests, both from Pearson Publishing: the Group Reading Assessment and Diagnostic Evaluation (GRADE), or the Group Mathematics Assessment and Diagnostic Evaluation (GMADE). The tests are administered twice, once prior to Ace it! instruction, and again, approximately 10 weeks later, when students complete the program.

The study is the initial phase of a larger research effort designed to assess the impact of the Ace it! program component of the Texas AIM program, not only on students' performance on the Ace it! assessments but also on their performance on the state's standardized tests. The findings summarized here will be the basis of a request REA will make to the Texas Education Agency for the Texas Assessment of Knowledge and Skills (TAKS) and the State of Texas Assessments of Academic Readiness (STAAR) scores of the hundreds of students who, from 2010–2014, received Ace it! instruction provided by Sylvan center staff in Boys & Girls Clubs around the state.

### **Overview: Texas AIM**

REA's research, and the Texas AIM program are focused on students who are at risk of falling behind in school. These are minority, low-income, and limited English proficiency students in low performing schools for whom the after-school and summer all-day programs can, through a combination of skills gap remediation and at-risk prevention services, effectively address student achievement gaps. Since 2009, the Texas Alliance of Boys & Girls Clubs (BGC) has partnered with Sylvan Learning Centers to provide these services to more than 10,000 BGC youth and teens at select sites throughout the state.

Students enrolled in local BGCs were placed in one of the three service levels offered by Sylvan:

- **LEVEL ONE “CATCH UP”:** *Ace it! Tutoring in Math or Reading*. Students who are performing below grade level receive approximately 30 hours of remediation support in the basic areas of math or reading. They were placed in instructional groups based on their scores on the GRADE or GMADE tests, and assessed on those tests at the end of approximately 30 hours of instruction.
- **LEVEL TWO “KEEP UP”:** *Homework Help and academic camps targeting core subjects*. Students who are performing at grade level received support on daily homework assignments and targeted help in core subjects.
- **LEVEL THREE “GET AHEAD”:** *Academic Camps and Group Instruction*. Students who are performing at or above grade level received enrichment instruction in targeted areas. This level was designed to target the teen population but also proved effective with younger youth. Students were grouped by grade and ability and assigned to the camp or group instruction that best fits their needs.

## Overview: the Ace it! Program

Sylvan Learning’s Ace it! program, managed and administered by local Sylvan franchisees in conjunction with local BGC staff, was designed to serve the remedial needs of students in kindergarten through eighth grade by providing instruction in reading and mathematics.<sup>1</sup> The multiple components of the program included:

- **Small group instruction:** Ace it! teachers provide instruction to small groups of up to eight students.
- **Specialized reading and mathematics curricula:** The reading curriculum, which includes specialized anthologies, provides instruction in phonemic awareness and phonics, and in comprehension, vocabulary, and fluency development. The concepts presented in the math curriculum help students progress from concrete to abstract understanding, through instruction that includes manipulatives, reinforcement of basic mathematic fact knowledge, and application of skills to solve word problems.
- **Student learning plans:** The individual learning plans that guide instructional activities are grounded in an assessment of the student’s learning needs and aligned with specific learning objectives.
- **Standardized assessments:** Ace it! uses the Pearson GRADE and GMADE assessments to measure students’ academic gains. Baseline assessments identify gaps in student learning and provide a basis for the development of student learning plans.
- **Student motivation system:** Program staff use rewards to build students’ self-esteem and motivate students to increase their efforts and achieve greater gains.

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<sup>1</sup> Kindergarten students receive instruction only in reading.

- **Quality assurance process:** Owners of local Sylvan franchises observe instructors during tutoring sessions and conduct quality audits of the programs delivered at local BGCs. Additionally, staff from the Sylvan Inc. national offices conducts visits to local sites to monitor program implementation.
- **Teacher training:** Ace it! teachers, who receive certification prior to working with students as well as ongoing training as needed, have access to training both on-line and in-person. The online training through Sylvan’s proprietary training site, Sylvan University, included instruction on the Ace it! Math and/or Reading curriculum, small group management, assessment and placement, and reporting. Additionally, all teachers received up to 6 hours of in-person training from the local franchisee.

## STUDY SAMPLE AND DATA ANALYSES

The study sample included 2,839 elementary and middle school students who took part in the Ace it! tutoring programs offered by 11 Sylvan Learning Centers in association with more than 30 Texas BGCs. Approximately half of the students were enrolled in Ace it! reading programs, and half, in math. Numbers of students enrolled in the programs each year varied, but figures were very similar by subject—with an average of 286 students enrolled per year (and included in the study) in reading, and 282, in math. The largest concentrations of students were in the 3rd to 5th grade groups.

**Table 1. Numbers of Students in the Study, by Grade Band and Subject**

	Reading	Math
Grades 1–2	431	307
Grades 3–5	944	929
Grades 6–8	56	172
<b>Overall</b>	<b>1,431</b>	<b>1,408</b>

Based on incoming or pre-test scores on the GMADE (math) and GRADE (reading) assessments, over 80% of the students in the study were considered low ability. The findings shared here are based on their performance on the post-tests, administered after approximately 10 weeks (or approximately 30 one-hour sessions,) of Ace it! instruction. The report shares pre- to post-test changes in two ways: Growth Scale Values (GSVs) and Normal Curve Equivalent (NCE). GSVs provide a measure of student achievement that can be compared across all grades and ages over various time periods. It is the assessment’s internally derived scaled score. The NCE is a way of measuring where a student falls along the normal curve. The numbers on the NCE line run from 0 to 100, similar to percentile ranks, which indicate an individual student's rank. NCE scores have a major advantage over percentile rank scores in that they are equal interval scores and can be averaged. As with many other scales related to the normal curve, the average NCE, by definition, is 50. If all students improve in their performance, the mean, or NCE 50, will represent a higher raw score. The standard deviation of NCE is set at 21.06. NCE were developed for program evaluation and are usually the choice for significance testing

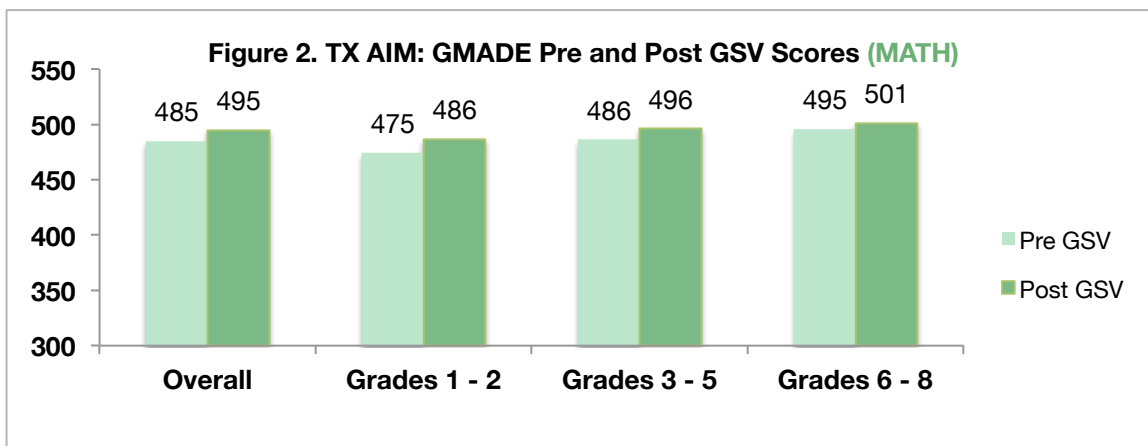
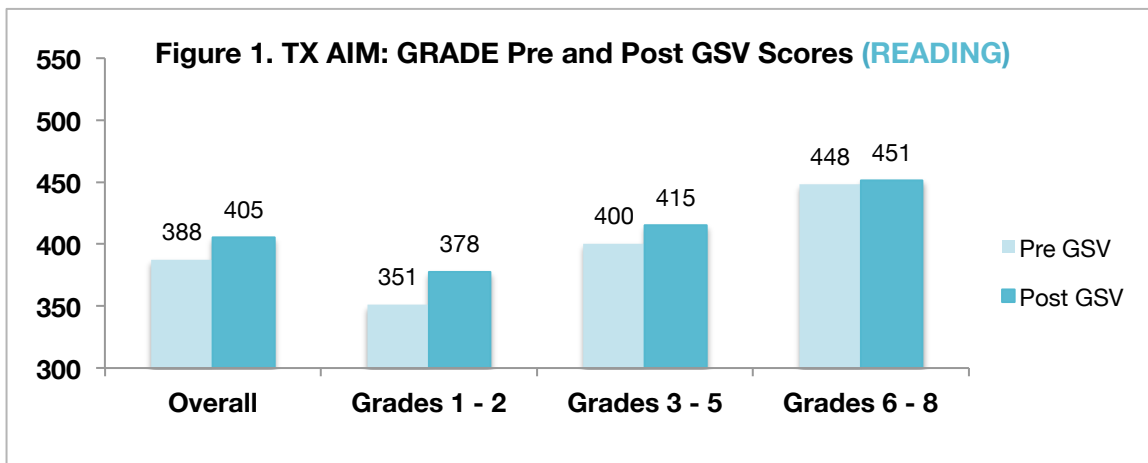
## FINDINGS

### ***Does participation in the Ace it! program affect students' academic growth?***

Test results from almost 3,000 students, who had both pre and post test scores, show that Ace it! had a positive impact on performance. In both reading and math, and for all three grade bands, students made pre- to post-test gains. Overall, students' GSV scores increased by 17 points in reading and 10 points in math; NCE scores increased 9 points in reading and 18 in math. Results generally reflected typical growth trends, with the younger students showing the most growth. GSV and NCE gains from pre to post test for all groups, except for grades 6–8 in reading, were statistically significant.

#### **GSV Results**

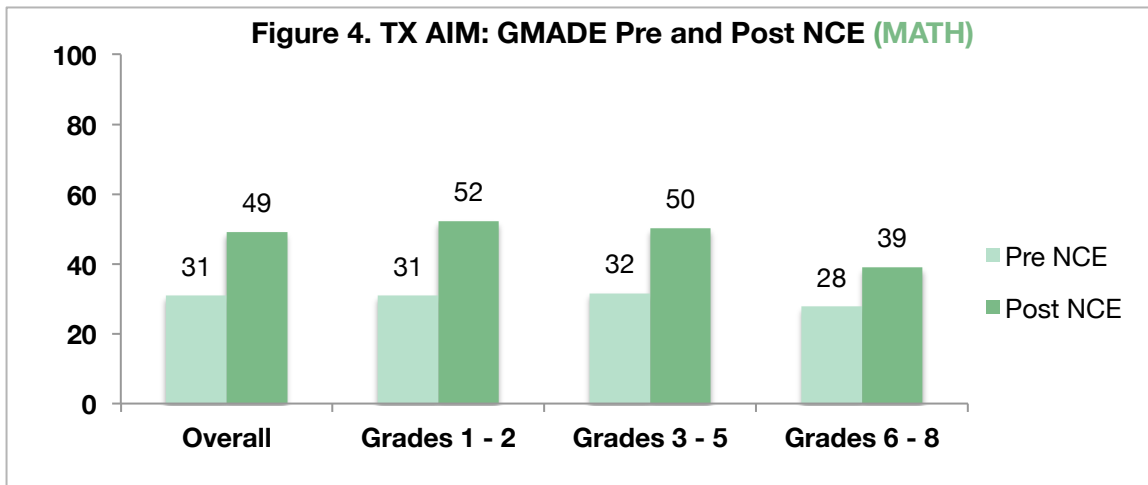
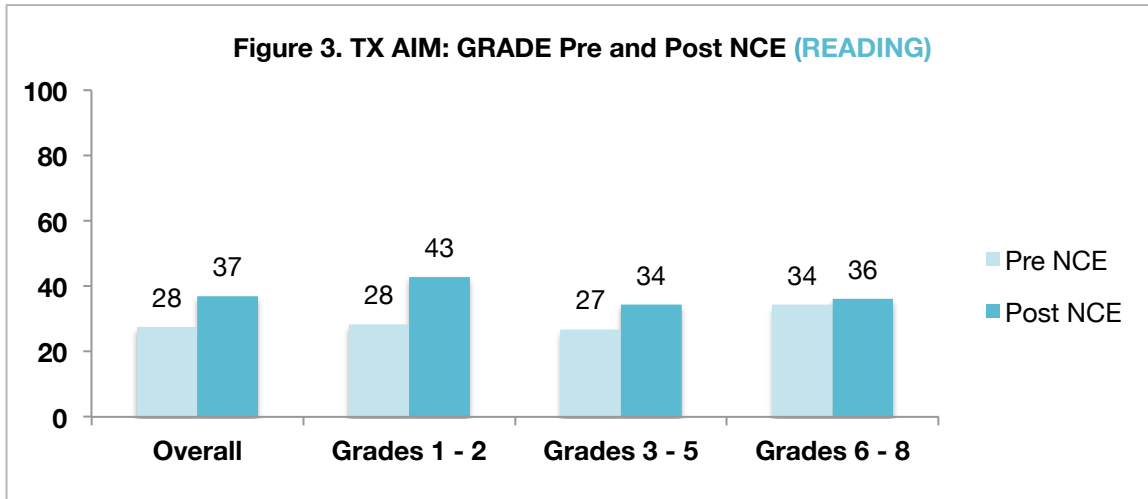
- In **reading**, first and second graders' GSV scores on the GRADE test rose 27 points, from 351 to 378. Pre- to post-test gains were smaller for students in grades 3–5, but students still made, on average, a 15-point gain. Sixth through eighth graders' scores increased by narrower margins. (See Figure 1.)
- In **math**, students in grades 1–2 and 3–5 made similar GMADE gains from pre- to post-tests, at 11 and 10 points, respectively. (See Figure 2.)



## NCE Results

The NCE results also show pre to post-test gains—again in reading and math, and again across grade bands.

- In **reading**, NCE scores among first and second grades rose 15 points; third through fifth graders' scores improved by 9 points, and sixth through eighth graders' scores, by 2 points. (See Figure 3.)
- In **math**, students in grades 1–2 and 3–5 made similar NCE gains, of 21 points and 18 points respectively.
- Sixth through eighth graders' **math** performance, based on NCE scores, increased by 11 points from pre- to post-tests. (See Figure 4.)



## SUMMARY

These results, though preliminary, suggest that the Act it! component of the Texas AIM program had a positive impact on the academic growth of hundreds of students. The results were not only positive but also a consistent—across subjects, grades, and measures. The NCE gains are particularly notable because they show that these students are not only holding their own, and performing at levels expected of grade-level peers, but that they are exceeding those expectations and norms.

The academic gains are important for other reasons as well. These gains were made by students who struggle because of limited English proficiency and the socio-economic challenges often writ large in the schools they attend. Without the instructional support they receive through Ace it! and Texas AIM, they might well fall behind in school—and not catch up. Moreover, the positive results suggest that the partnership between Texas AIM, BGCs, and Sylvan is a viable after-school supplemental support model that changes the academic performance and prospects for at-risk students. The proposed larger study could further validate the program and its impact.