

**Preliminary Report of the Action Learning Systems
2003-2004 Learning Tree™ Intervention Services
in Stockton Unified School District
April 2004**

BACKGROUND

In 2003-04, the Stockton Unified School District initiated the Learning Tree™ Language Arts Program in 30 schools K-6, for approximately 500 students, as part of a ten-week intensive intervention pullout program during the school day for students performing below grade level. Participating schools have completed two ten-week Learning Tree™ Language Arts programs and as of April 2004—the date of this report—the District has begun offering a third ten-week session.

The following sections present the assessment results for students that completed a Learning Tree™ Language Arts program between fall 2003 and April 2004. This preliminary examination of the pretest and post-test differences is part of a comprehensive ALS evaluation to be completed in early 2005. The analyses focus on the evaluation question:

To what extent did the students who completed a Learning Tree™ Language Arts program achieve the intended outcomes?

ASSESSMENTS

The Learning Tree™ Language Arts Program targeted improvement in attainment of the *California English Language Arts Standards* related to fluency and writing.

The schools measured achievement of these intended outcomes with a pretest the first week of the session and the post-test the last week of the session. ALS contracted with external experts in English language arts to develop the tests used to measure achievement of the English language arts standards. These experts developed the Fluency Test, and the ALS Writing Assessment.

Reading Outcomes for Elementary Schools

Stockton Unified School District implemented the Learning Tree Program at 15 of its schools: Wilson, Washington, Valenzuela, King, Pulliam, San Joaquin, Roosevelt, Kohl, Huerta, Hoover, Hazelton, Elmwood, August, Adams and Fillmore Schools.

Those schools submitted pretest and post-test scores on the English Reading Fluency test for 477 students. Table 1 provides descriptive statistics for those results.

Table 1
Pretest and Post-test Percentage Correct on the Learning Tree™
Elementary School Fluency Test—2003-2004

Fluency	Pretest	Post-test	Change
	Number = 477		
Average	75.8	95.9	20.1
Minimum	9	13	-48
Maximum	225	243	123
Medium	73	94	18
Mode	68	110	0
Standard Deviation	31.1	34.0	22.3
Cohen's d	0.62		Medium Effect

The changes between pretest and post-test scores showed improvement in the student's proficiency in fluency. Student fluency increased with the average student attaining a post-test of 95.9, up from 75.8 a difference of 20.1. Examining the difference between the two sets of scores using Cohen's d for effect size yield a statistic of .62, consistent with a medium effect.

English Language Learners English language learners comprise over 20% of the students with both pretest and post-test scores. Table 2 presents the results of the pretest and post-test scores for the 96 English Language Learners included in the above table.

Table 2
Pretest and Post-test Result of the Learning Tree™ English Fluency Tests
for Elementary School English Language Learners

Fluency	Pretest	Post-test	Change
	Number = 96		
Average	81.9	104.0	22.0
Minimum	15	22	-41
Maximum	183	270	96
Medium	79.5	95.5	17.5
Mode	85	104	0
Standard Deviation	33.7	43.5	25.4
Cohen's d	0.57		Medium effect

The changes between pretest and post-test scores showed improvement in the student’s proficiency in fluency. Student fluency increased with the average student attaining a post-test of 104.0, up from 81.9, a difference of 22.0. On average English Language Learners improved at a higher rate than all other students with pretest and post-test scores. Computation of the Cohen’s d statistic to determine yielded an effect size of .57, which can be interpreted to indicate that the Learning Tree™ Program had a medium effect.

Elementary School Writing Assessment

The Stockton Unified School District Learning Tree institutes also assessed their students’ writing using a holistic writing prompt and scoring process based on the Golden State Exams writing assessment protocols. The writing samples received a rubric score from 1 to 5, with 1 being the lowest possible score and 5 the highest writing performance.

Twenty one elementary schools (Adams, August, Cleveland, Elmwood, Bush, Fillmore, Hoover, Kennedy, King, Kohl, McKinley, Montezuma, Pulliam, San Joaquin, Valenzuela, Skills, Victory, Wilson, El Dorado, Hazelton and Washington Elementary Schools) provided writing assessment scores for a total of 399 students. Table 3 provides the results of those writing assessments for all students regardless of language proficiency level, and Figure 1 illustrates the changes from pretest to post-test.

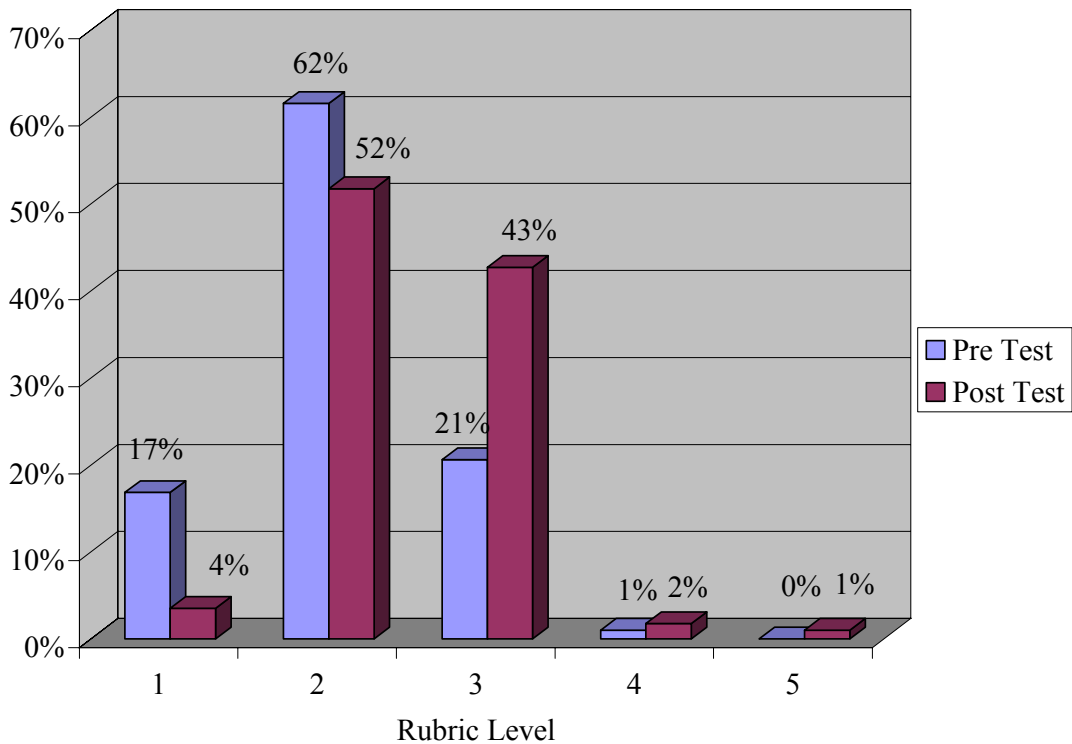
Table 3

Percent of Elementary School Writing Assessment Rubric Scores
2003-2004 Pretest and Post-test
April 2004

Writing Rubric Score	Pretest	Post-test	Change
	Number = 399		
1	17%	4%	-13%
2	62%	52%	-10%
3	21%	43%	22%
4	1%	2%	1%
5	0%	1%	1%

Figure 1

Changes in Writing Achievement at Elementary Schools



This chart highlights the desirable changes in writing proficiency: the percentage of student writing scoring at the lowest levels of 1 and 2 decreased, while the percentage of those scoring at the higher levels of 3 through 5 increased by 24 percent, a marked improvement given the short duration of the program.

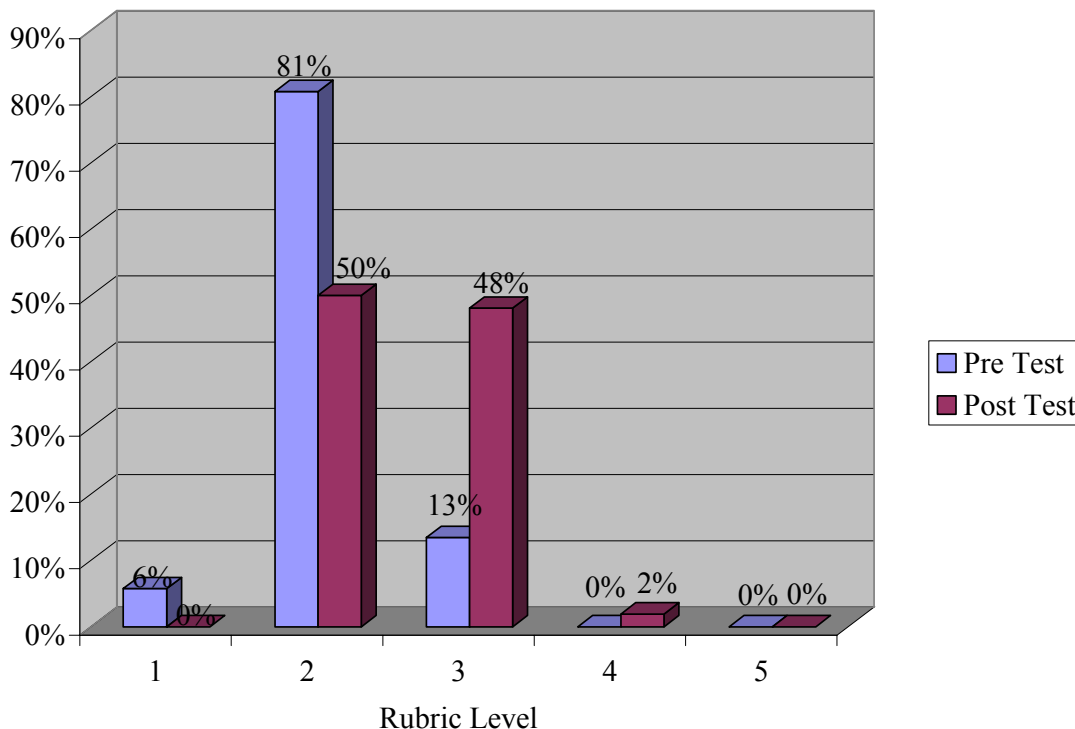
English Language Learners The Learning Tree™ Program in the Stockton USD identified 52 of the 399 students with pretest and post-test scores as English Language Learners. Table 4 provides those results.

Table 4
Percent of Elementary School Writing Pretest and Post-test Rubric Scores of 2003-2004 English Language Learners

Writing Rubric Score	Pretest	Post-test	Change
	Number = 52		
1	6%	0%	-6%
2	81%	50%	-31%
3	13%	48%	35%
4	0%	2%	2%
5	0%	0%	0%

Figure 2 highlights again the very desirable changes in writing proficiency: the percentage of student writing scoring at the lowest levels of 1 and 2 dropped significantly, while those scoring at the higher level of 3 and 4 increased by approximately 37 percent, a striking improvement.

Figure 2
Changes in Writing Achievement at Elementary Schools
English Language Learners



Summary and Discussion

These preliminary test results consistently show improvement in the English language arts pretest and post-test performance of students participating in the Stockton Unified School District Learning Tree™ Language Arts programs *for whom both pretest and post-test scores were provided*. Students demonstrated their increasing mastery of English Language Arts standards based on the results of a fluency test and a holistic direct writing assessment modeled on the Golden State Writing Assessment.

Recommendation

Stockton Unified School District should make every effort to pretest and post-test all students completing the ten-week program and provide explanations for missing pretest and post-test scores to enable future evaluations of the program effect on all students.