

# **ESL READINGS<sub>SMART</sub> PROGRAM**

## **KATY ISD RESEARCH STUDY 2008-2009**

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## Number of ESL ReadingSmart Students Included in Data Analysis

ESL ReadingSmart provided a file with 921 Katy Independent School District (KISD) students with ESL ReadingSmart Achievement Test scores and number of lessons mastered and Katy ISD submitted a file with 648 ESL students with TELPAS and TAKS scores. In order to conduct the analysis the following subgroups were formed:

<b>Number and Percent of Katy ISD ESL Students Included in Research Study Analysis</b>					
<b>Databases</b>	<b>Total</b>	<b>ESL ReadingSmart File</b>	<b>Matched Students ESL ReadingSmart File to Katy File</b>	<b>TELPAS 2009</b>	<b>TAKS Reading 2009</b>
ESL ReadingSmart File	921				
Activity Count/Mastered		918 (99%)			
Lesson Count/Mastered		918 (99%)			
Katy ISD File	648		467 (72%)	333 (71%)	209 (45%)
<b>Katy ESL Students matched with ESL ReadingSmart Usage N=467</b>				<b>TELPAS 2009</b>	<b>TAKS 2009</b>
Progress or Gain				333 (71%)	209 (45%)
<b>Katy ESL Students who mastered 10 ESL ReadingSmart Lessons</b>				<b>TELPAS 2009</b>	<b>TAKS 2009</b>
Scatter Plot with Tread Line				97 (21%)	74 (16%)
Scatter Plot with Tread Line for Combined Lessons and Activities Mastered				93 (20%)	71(15%)
Correlation				96 (21%)	73 (16%)

ESL ReadingSmart file and the Katy database file were matched and 467 students appeared on both databases.

- 918 or 99% of the 921 ESL ReadingSmart students had ReadingSmart activity and lesson counts in addition to activity and lesson mastery levels.
- 333 or 71% of the 467 Katy ISD ESL students had 2009 TELPAS composite scores.
- 209 or 45% of the 467 Katy ISD ESL students had 2009 TAKS reading scale scores.

Katy ISD ESL students who mastered 10 ESL ReadingSmart Lessons and had test scores:

- TELPAS 2009 composite scores were available for 97 or 21% of the 467 Katy ESL students.
- TAKS 2009 reading scale scores were available for 74 or 16% of the 467 Katy ESL students.

## Katy Independent School District ESL ReadingSmart Program Research Study 2008-2009

### Katy Independent School District and ESL Reading Smart Program Background

Encompasses 181 square miles 20 miles west of downtown Houston in Harris, Fort Bend and Waller Counties. The district has 47 campuses including 29 elementary schools, 10 junior highs, 6 high schools, a career-technology center and an alternative center. Instructional quality guided by a comprehensive district wide curriculum management plan, which coordinates development, delivery and assessment of teaching throughout the district. It also has a highly advanced technology program which includes one to three computers in each classroom, stationary and wireless labs in each school, campus-based technology facilitators, distance learning capabilities, a fiber optic network linking every school and facility, and an automated curriculum management plan. Katy ISD is one of the fastest-growing school districts in Texas with an annual growth rate of about 5 to 6 percent projected through 2016.

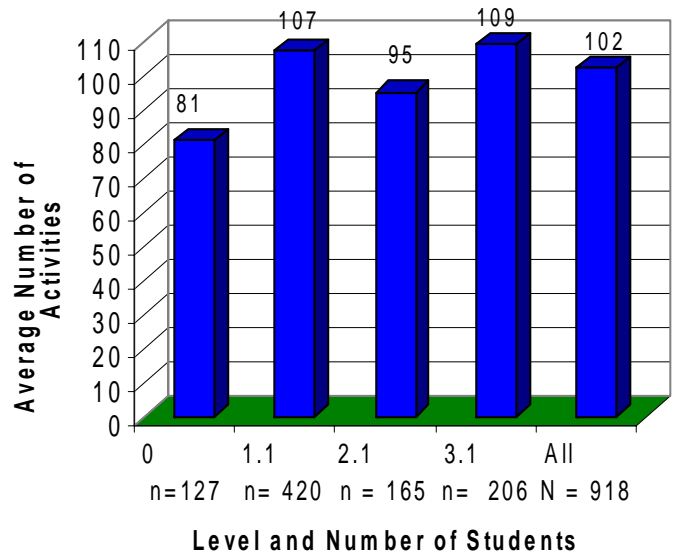
In partnership with parents and community, the mission of the Katy Independent School District, as a premier district in the state of Texas, seeks academic excellence for each student to pursue a productive and fulfilling life through a balanced curriculum aligned with quality instruction and assessment of achievement.

<b>ESL ReadingSmart Research Findings</b>	<b>Student Profile</b>
	<ul style="list-style-type: none"> <li>• ESL Reading Smart File n = 921</li> <li>• Katy ISD File n = 648</li> <li>• Matched ESL Students n = 467</li> <li>• Grades 6–12</li> </ul>
During the 2008–2009, Katy Independent School District partnered with Alloy Multimedia to improve academic performance for English Language Learners (ELLs) in grades 6–12. Title III funds were used to purchase the <b>ESL ReadingSmart</b> Program focusing on improved student achievement on the Texas English Language Proficiency Assessment System – Reading (TELPAS) and Texas Assessment of Knowledge and Skills (TAKS). Students participated in the program during their ESL classes for one session a week. Each session was conducted for one hour.	<b>ESL ReadingSmart Implementation</b>
	<ul style="list-style-type: none"> <li>• Supplemental Reading Program</li> <li>• Web-based</li> <li>• Supports classroom instruction</li> <li>• Supports state adopted objectives</li> <li>• Materials for all ESL levels</li> </ul>
<b>ESL ReadingSmart File (Activity and Lesson Count/Mastered)</b>	<b>Research Instruments</b>
<ul style="list-style-type: none"> <li>• The average activity count for ESL students (N=918) was 102 activities with an average percent of activity mastered of 67%.</li> <li>• The average lesson count for ESL students (N=918) was 17 lessons with an average percent of lessons mastered of 29%.</li> </ul>	<ul style="list-style-type: none"> <li>• ESL ReadingSmart Achievement Test</li> <li>• Texas English Language Proficiency</li> <li>• Texas Assessment of Knowledge and Skills</li> </ul>
<b>Scatter Diagrams and Regression Line Results 2008-2009</b>	<b>Research Time Frame</b>
Frequency distributions are presented through scatter diagrams of plotted data. The figures demonstrate the relationship between the percent of students mastering lessons, activities, or an index of both mastered lessons & activities compared to TELPAS and TAKS. The scatter plots reveal positive regression slopes. This means that as the number of lessons or activities mastered increases so does the TELPAS composite and TAKS score.	<ul style="list-style-type: none"> <li>• August 2008 – May 2009</li> </ul>
<b>Correlation Study Results</b>	<b>Data Analysis</b>
The Pearson or product-moment correlation coefficient for a particular set of data measures a specific of relationship: the linear correlation between two variables. The r measures the degree to which a straight line relating x and y can summarize the trend in a scatter plot.	<ul style="list-style-type: none"> <li>• ESL ReadingSmart average <b>activity count</b> provides the number of activities students attempted for the year.</li> <li>• ESL ReadingSmart average <b>lesson count</b> (usage) provides the number of lessons completed in a year.</li> <li>• A graph called a <b>scatter diagram</b> provides one of the most useful ways of seeing whether, and to what degree (regression line –slope), two variables co-vary.</li> <li>• <b>Correlation</b> is an interrelation between two or more sorts of conditions or events.</li> <li>• A correlation study rarely indicates which variable influences which, or even whether either variable is influencing the other one directly. A correlation coefficient can never tell us anything about causality.</li> </ul>
<ul style="list-style-type: none"> <li>• The correlation (<math>r = .140</math>) between ESL ReadingSmart lessons mastered and TELPAS 2009 composite score was not significant.</li> <li>• The correlation (<math>r = .730</math>) between ESL ReadingSmart lessons mastered and TAKS reading 2009 scale score was significant at the 0.01 level (2-tailed). The magnitude of the correlation was large.</li> </ul>	

**What was the average activity count (usage) from 2008 to 2009 for Katy ESL students who mastered 10 ESL ReadingSmart Lessons?**

- Katy ESL students who began at level 0 completed an average of 81 activities.
- Katy ESL students who began at level 1.1 completed an average of 107 activities.
- Katy ESL students who began at levels 2.2 accomplished an average of 95 activities.
- Katy ESL students who began at levels 3.1 completed an average of 109 activities.
- The average activity count (usage) for all Katy ESL students (N=791) was 105.

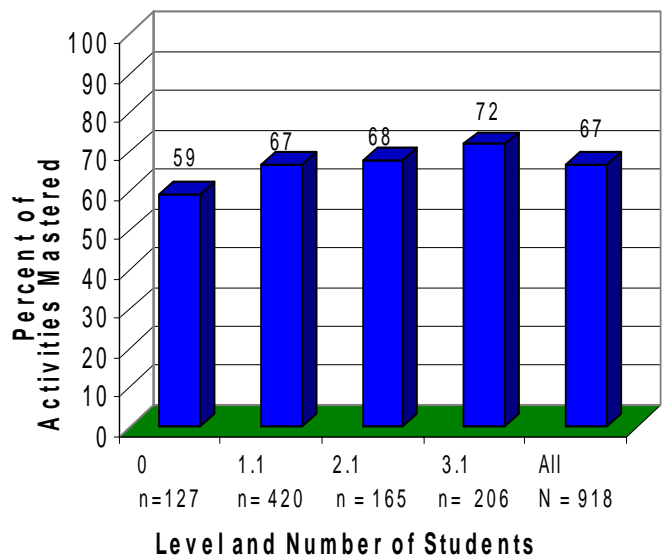
**Average Activity Count for Katy ESL Students Who Participated in the ESL ReadingSmart Program 2008-2009**  
N=918



**What was the average number of activities mastered during 2008-2009 by Katy ESL students who participated in the ESL ReadingSmart program?**

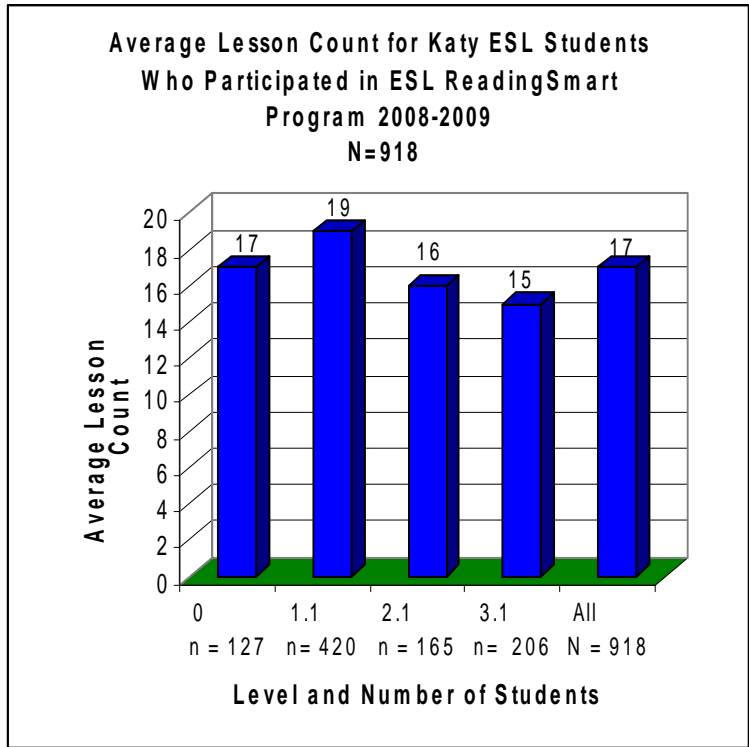
- Katy ESL students who began at level 0 demonstrated an average percent of activities mastered of 59% or 48 out of 81 activities.
- Katy ESL students who began at level 1.1 demonstrated an average percent of activities mastered of 67% or 71 out of 107 activities.
- Katy ESL students who began at levels 2.2 had an average percent of activities mastered of 68% or 65 out of 95 activities.
- Katy ESL students who began at level 3.1 established an average percent of activities mastered of 72% or 79 out of 109 activities.
- The average activities mastered (usage) for all Katy ESL students (N=918) was 67% or 68 out of 102 activities.

**Percent of Activities Mastered by Katy ESL Students Who Participated in the ESL ReadingSmart Program 2008-2009**  
N=918



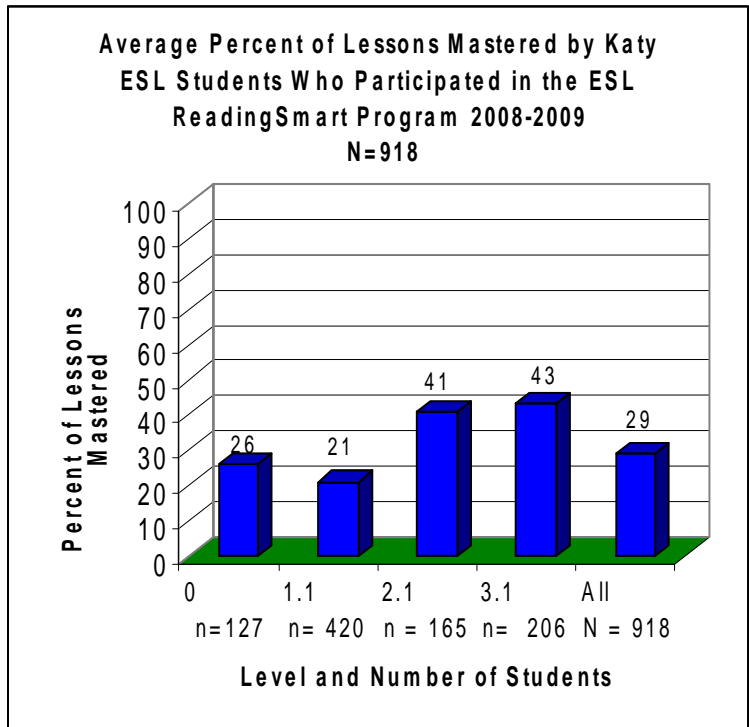
**What was the average lesson count for Katy ESL students on the ESL ReadingSmart program by level?**

- Katy ESL students who began at level 0 demonstrated an average lesson count of 17 lessons.
- Katy ESL students who began at level 1.1 demonstrated an average lesson count of 19 lessons.
- Katy ESL students who began at levels 2.2 had an average lesson count of 16.
- Katy ESL students who began at level 3.1 established an average lesson count of 15 lessons.
- The average lesson count (usage) for all Katy ESL students (N=918) was 17 lessons.



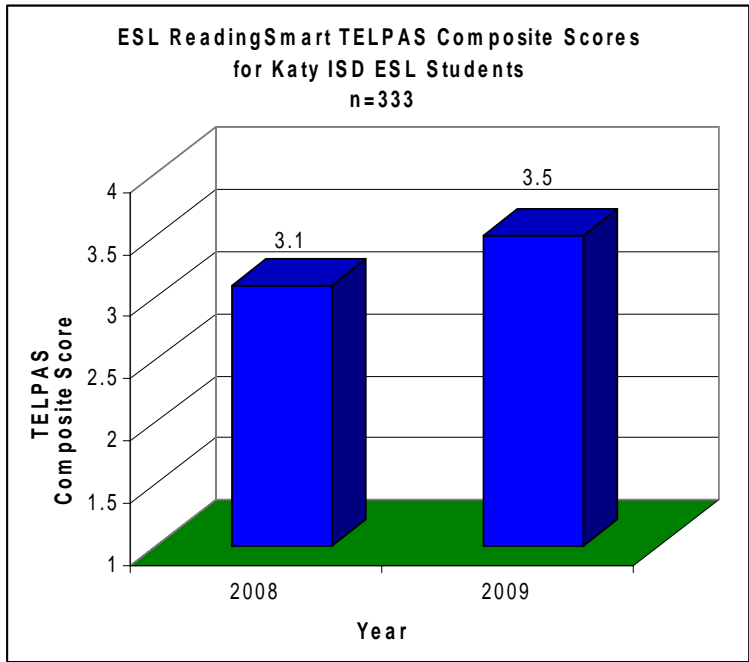
**What was the average number of lessons mastered during 2008-2009 by Katy ESL students who participated in the ESL ReadingSmart program?**

- An average of 26% or 4 out of 17 lessons was mastered by level 0 Katy ESL students.
- An average of 21% or 4 out of 19 lessons was mastered by level 1.1 Katy ESL students.
- An average of 41% or 7 out 16 lessons was mastered by level 2.1 Katy ESL students.
- An average of 41% or 6 out 15 lessons was mastered by level 3.1 Katy ESL students.
- The average percent of lessons mastered for all 918 Katy ESL students who participated in the ESL ReadingSmart Program in 2008-2009 was 29% or 5 out of 17 lessons.



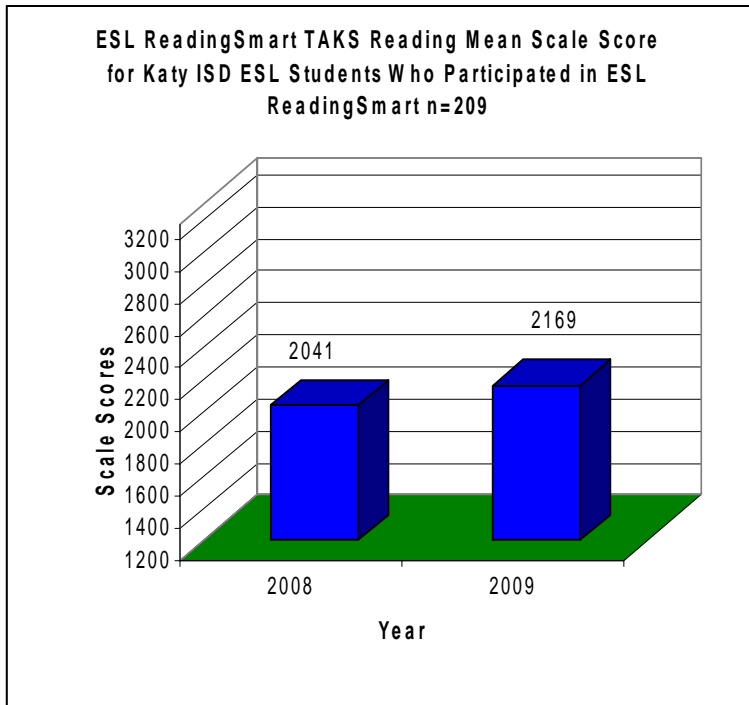
**What was the improvement from 2008 to 2009 in TELPAS composite scores for Katy ESL students who participated in the ESL ReadingSmart Program?**

- The mean TELPAS composite score for Katy ESL ReadingSmart students increased from 3.1 in 2008 to 3.5 in 2009.
- The TELPAS mean composite score improved by .4 points from 2008 to 2009.



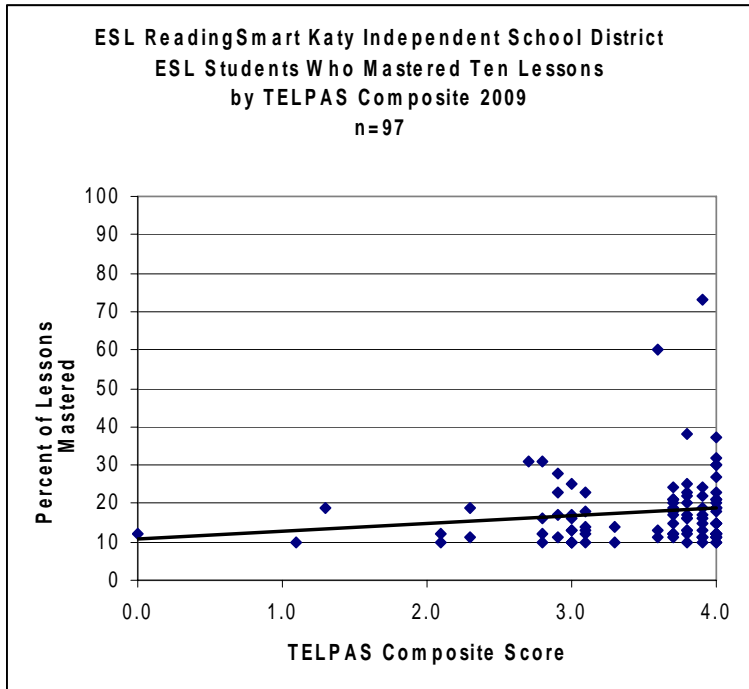
**What was the improvement from 2008 to 2009 in TAKS Reading Scale Scores for Katy ESL students who participated in the ESL ReadingSmart Program?**

- The mean TAKS reading scale score for Katy ESL ReadingSmart students increased from 2041 in 2008 to 2169 in 2009.
- The TAKS reading scale score improved by 128 points from 2008 to 2009.



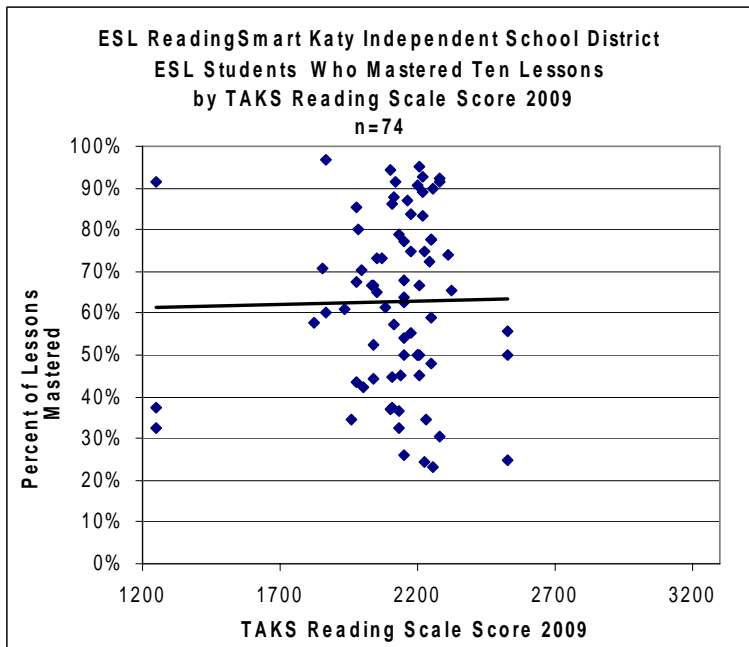
**Is there a relationship between Katy ISD ESL ReadingSmart students who mastered at least 10 lessons and their TELPAS scale score for 2009?**

- The results indicate that as the percent of lessons mastered increases so does the TELPAS composite score.
- The scatter plots for percent of lessons mastered to TELPAS composite score for 2009 reveals a positive regression line.



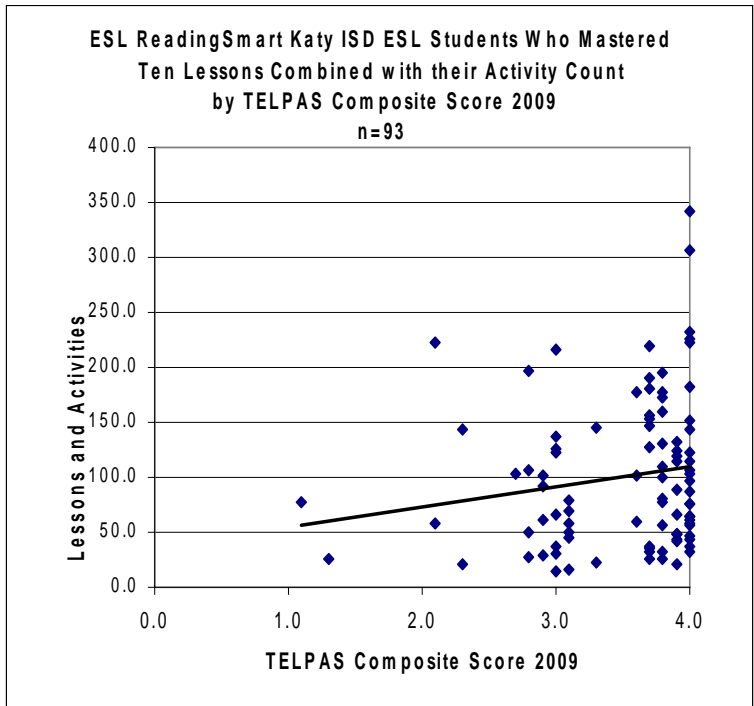
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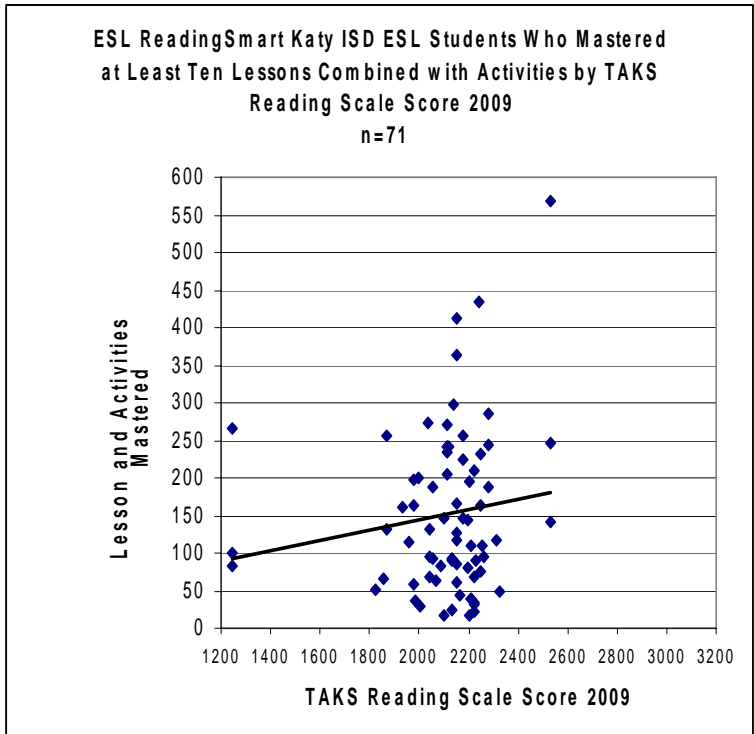
**Is there a relationship between Katy ISD ESL ReadingSmart students who mastered at least 10 lessons combined with their activity count on TELPAS composite score for 2009?**

- The results indicate that as the percent of lessons mastered and activity count increases so does the TELPAS composite score.
- The scatter plots for percent of lessons mastered and activity count combined to TELPAS composite score for 2009 reveals a positive regression line.



**Is there a relationship between Katy ISD ESL ReadingSmart students who mastered at least 10 lessons combined with their activity count on TAKS scale score for 2009?**

- The results indicate that as the percent of lessons mastered and activity count increases so does the TAKS reading composite score.
- The scatter plots for percent of lessons mastered and activity count to TAKS reading scale score for 2009 reveals a positive regression line.





**Was there a significant correlation between lessons mastered and TELPAS scale scores for Katy ISD ES students who were instructed with ESL ReadingSmart during the 2008-2009?**

- The correlation ( $r = .140$ ) between lessons mastered and TELPAS 2009 composite score was not significant.
- There was not a correlation between ESL ReadingSmart lessons mastered and TELPAS composite score possibly because the TELPAS measures listening, speaking, reading and writing and ESL ReadingSmart measures only reading.
- The TELPAS composite score is made up of a four point scale which may not have sufficient range to discriminate.

Correlations			
		Mastered Lessons	TELPAS Comp Score 2009
Mastered Lessons GREATER THAN 10	Pearson Correlation	1.000	.152
	Sig. (2-tailed)		.140
	N	96.000	96
TELPAS Comp Score 2009	Pearson Correlation	.152	1.000
	Sig. (2-tailed)	.140	
	N	96	96.000

**Was there a significant correlation between lessons mastered and TAKS reading composite score scale for Katy ISD ES students who were instructed with ESL ReadingSmart during the 2008-2009?**

- The correlation ( $r = .730$ ) between lessons mastered and TAKS 2009 reading scale score was significant at the 0.01 level (2-tailed).
- The magnitude of the correlation was large.

Correlations			
		TAKS RD 2009 Scale	Mastered Lessons
TAKS RD 2009 Scale	Pearson Correlation	1.000	.041
	Sig. (2-tailed)		.730
	N	73.000	73
Mastered Lessons GREATER THAN 10	Pearson Correlation	.041	1.000
	Sig. (2-tailed)	.730	
	N	73	96.000
**. Correlation is significant at the 0.01 level (2-tailed).			

## Summary

The purpose of this study was to present ESL ReadingSmart usage of Katy ESL students during the 2008-2009 academic year and analyze their TELPAS composite and TAKS scale scores. In addition, the study included scatter plots and correlation analysis for Katy ESL students who mastered at least ten lessons on the 2009 TELPAS composite scores and 2009 TAKS scores.

The average activity count (usage) for all Katy ESL students (N=918) was 102 and the average activities mastered was 67% or 68 out of 102 activities. The average lesson count (usage) for all Katy ESL students (N=918) was 17 lessons and the average percent of lessons mastered was 29% or 5 out of 17 lessons. TELPAS mean composite score improved by .4 points from 2008 to 2009 and TAKS reading scale score improved by 128 points from 2008 to 2009. The scatter plots reveal positive regression slopes. This means that as the number of lessons or activities mastered increased so did the TELPAS composite score and TAKS reading scale score.

Based on correlation analysis performed on the ESL ReadingSmart Katy students who completed 10 lessons and had TELPAS composite scores and TAKS scale scores for 2008 and 2009, the correlation was not significant for TELPAS but was significant for TAKS. TELPAS was not significant possibly because it measure listening, speaking, reading and writing while the ESL ReadingSmart lessons address only reading. The TAKS reading analysis was significant at the .01 level which demonstrated there was a positive relationship between the two variables as number of lessons mastered increased then the TAKS reading scale scores increased.

The educational implications of the study are:

1. Increased usage of ESL ReadingSmart lessons will improve the percent of ESL students who demonstrate a gain in TELPAS composite scores and TAKS scale scores.
2. TAKS reading scale scores by lessons mastered revealed a positive correlation which indicates that as one increased the other also increased. ESL teachers need to ensure that students use the ESL ReadingSmart program often and complete or master as many lessons as possible for best results.