

# **LOTI PROJECT SCHOOL SUMMARY REPORT**

**FOR  
HOLLYWOOD ELEMENTARY SCHOOL**

**PRESENTED TO:**

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## **SECTION ONE: INTRODUCTION**

The LoTi Project Schools use the critical components of 21st Century learning as articulated by the Partnership for the 21st Century (i.e., critical thinking, collaboration, problem-solving, and self-directed investigations) to increase student academic achievement in core content areas based on NCLB targets. (Appendix A) The emphasis is on contextual learning that enables students to transfer their content understanding to real world situations using the available technology assets in the classroom. In LoTi Project classrooms, there is a renewed emphasis to provide greater rigor and relevance to the eligible content as students transition from passive to active learners and employ technology as a seamless tool.

A campus becomes a LoTi Project School for numerous reasons: (1) increasing student achievement on standardized tests scores in one or more core content areas; (2) implementing a 21st Century learning approach across all grade levels and content areas; (3) improving the efficient and effective use of learning technologies in the classroom; and/ or (4) improving instruction based on national and international reform models such as: Daggett's Rigor & Relevance, Marzano's Research-based Practices, and Webb's Depth of Knowledge. The outcome of becoming a LoTi Project School is increased student engagement, a higher LoTi (Levels of Technology Implementation) level in each classroom, and improved student achievement.

The challenge of today's classrooms requires teachers to utilize the available learning technologies to engage students in their own learning and bridge the generation gap with today's millennial learners. During the 2006-2007 school year, Hollywood Elementary School in the Hollywood Independent School District was one of 48 campuses nationwide and in Puerto Rico that employed 21st Century learning to bring more H.E.A.T. (Higher-order thinking, Engaged learning, Authenticity, and Technology use) to their continuous improvement efforts at the classroom level.

## SECTION TWO: IMPLEMENTATION MODEL

Each LoTi Project School followed the 4-Step LoTi Implementation Model to achieve success according to its targeted goals and objectives. The Model consists of the following stages: Assess, Plan, Implement, and Sustain.

### *Assess:*

The Assess Stage involved data collecting strategies for assessing the targeted staff's pre/post LoTi levels and pre/post CIP levels at Hollywood Elementary School. Targeted staff members also completed the online DETAILS for the 21st Century Questionnaire (e.g., LoTi assessment) to (1) determine their Level of Technology Implementation (LoTi), Personal Computer Use (PCU), and Current Instructional Practices (CIP) and (2) create an individualized professional development priority portfolio. The Assess stage provided the (1) mechanism to identify trends in professional development needs for the targeted staff members (e.g., complex student projects, student-centered instruction) and (2) the impetus to increase teachers' level of technology implementation (LoTi) toward the "target" technology level as established by the Texas StaR Chart.

### *Plan:*

The Plan Stage addressed the creation of a Next Steps Action Plan that was tailored to the targeted staff members aggregate LoTi and CIP data as well as prior TAKS score data for the targeted student population. The Next Steps Action Plan for Sheridan Elementary School outlines a specific course-of-action involving goals, objectives, action steps, and deliverables to improve student achievement based on the TAKS and content-related benchmark assessments and increase the amount of H.E.A.T. (i.e., Higher order thinking, Engaged learning, Authenticity, Technology use) in the classroom

### *Implement:*

At the Implement Stage, District Certified National LoTi Trainers and Mentors implemented professional development interventions targeting specific instructional needs at Sheridan Elementary School. These needs were based on earlier assessment data and consistent with the Next Steps Action Plan. The interventions included LoTi orientation sessions, lesson plan reviews, and content-related workshops focusing on H.E.A.T.

### *Sustain:*

The most critical stage of the LoTi Implementation Cycle is the Sustain Stage. The stage enabled building administrators and National LoTi Certified Trainers to sustain positive changes in classroom instructional practices through H.E.A.T. walkthroughs, peer mentoring sessions, and on-going dialogue between the campus LoTi Liaison and the National LoTi Project School Coordinator. These

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events promoted clear articulation among all stakeholders involved in the LoTi implementation process to ensure that all goals and objectives were achieved based on the Next Steps Action Plan.

## **SECTION THREE: GOALS & OBJECTIVES**

### **School LoTi Goal(s):**

1. Improve student achievement in 4<sup>th</sup>-5<sup>th</sup> grade Science
2. Elevate technology implementation in 4<sup>th</sup>-5<sup>th</sup> grade Science based on the Levels of Technology Implementation (LoTi) Framework (Appendix A).
3. Increase the Current Instructional Practices (CIP) Intensity Level (Appendix B) toward greater emphasis on higher order thinking skills and student-based investigations in the classroom.

### **School LoTi Objective(s):**

1. Sheridan Elementary School will document all 4<sup>th</sup>-5<sup>th</sup> grade Science staff members at a LoTi Level 3 (Infusion) or higher during the 2006-07 school year.
2. The Sheridan Elementary School administrative team will accurately document the LoTi (Levels of Technology Implementation) Level during classroom walkthroughs.
3. Sheridan Elementary School will successfully implement 100% of its Next Steps Action Plan that target specific CIP, LoTi, and student achievement goals for the 2006-07 school year.
4. The Sheridan Elementary School administrative team will conduct a minimum of two LoTi walkthroughs for each 4<sup>th</sup>-5<sup>th</sup> grade Science staff member during the 2006-07 school year.
5. The Sheridan Elementary School 4<sup>th</sup>-5<sup>th</sup> grade Science staff will create a minimum of one (1) LoTi 4 instructional unit during the 2006-07 school year.
6. Sheridan Elementary School will achieve AYP for 4<sup>th</sup>-5<sup>th</sup> grade science based on the 5<sup>th</sup> grade Science TAKS and the 4<sup>th</sup> grade end-of-year benchmark assessment during the 2006-07 school year.

## SECTION FOUR: STATISTICAL ANALYSIS

The purpose of this report was fourfold: (1) to determine changes in Sheridan Elementary School 5<sup>th</sup> grade students Science achievement scores based on the Texas Assessment of Knowledge and Skills (TAKS) from 2005-06 to 2006-07, (2) to determine changes in Sheridan Elementary School 4<sup>th</sup> grade students Science achievement scores based on the End-of-Year Benchmark Assessment from 2005-06 to 2006-07, (3) to determine changes in the level of technology implementation of Sheridan Elementary School 4<sup>th</sup>-5<sup>th</sup> grade Science staff from Fall, 2006 to Spring, 2007, and (4) to determine changes in the Current Instructional Practices intensity level of Sheridan Elementary School 4<sup>th</sup>-5<sup>th</sup> grade Science staff members from Fall, 2006 to Spring, 2007.

### **TAKS Achievement**

Students participated in the annual TAKS assessment in Spring 2006 and 2007. This assessment is used by the state of Texas to measure student achievement based on the statewide curriculum in reading at Grades 3-9; in writing at Grades 4 and 7; in English Language Arts at Grades 10 and 11; in mathematics at Grades 3-11; in science at Grades 5, 10, and 11; and Science at Grades 8, 10, and 11. The type of statistical analyses used to determine statistically significant academic gains in student achievement based on the TAKS involved *chi square tests of general association and t tests for percentages*.

1) Separate *chi square tests of general association* were conducted for each school. This type of test shows whether there is a statistically significant association between grade level and meeting the standard in the targeted content area from 2005-06 to 2006-07. In other words, is grade level significantly related to, or correlated with, meeting academic standards from one academic year to the next? The chi square test looks at the number (frequency) of students who met the standard from 2005-06 to 2006-07.

2) Separate *t tests for percentages* were conducted for each school to determine whether the overall percentage of Science TAKS scores from 2005-06 to 2006-07 was significantly different when considered across all students at the 5<sup>th</sup> grade.

In addition to reporting the total number of students who met the standard from 2005-06 to 2006-07 (which the chi square test analyzes), *it is important to report the percentages who met the standard because the total number of students who were tested varies from year to year for each school. Therefore, even though the raw numbers may look significantly different, the actual percentage of students from year to year may not be significantly different.*

*It is also critical to mention that the subsequent analysis of TAKS data did not take into consideration changing student populations that may have occurred from the 2005-06 to 2006-07 due to district re-zoning, new home construction, or sudden population influxes arriving from outside the district.*

### **Benchmark Achievement**

The End-of-Year Science Benchmark Assessment was administered to all 4<sup>th</sup>-4<sup>th</sup> grade students. The *differences in mean scores* for each grade level was used to determine changes in the 4<sup>th</sup> Science achievement levels from the 2005-2006 to the 2006-07 school year.

3) The *differences in mean scores* was calculated for each grade level to determine whether the percentage of students who Met Standard on the End-of-Year Benchmark changed for 4<sup>th</sup> Grade from 2005-06 to 2006-07.

### **Levels of Technology Implementation (LoTi)**

Structured classroom observations based on the Levels of Technology Implementation (LoTi) Framework were used to determine changes in targeted staff members' LoTi level from Fall, 2006 to Spring, 2007. (Appendix B) National Certified LoTi Trainers conducted these classroom observations using a standard set of LoTi characteristics or "look-fors." Content validity of the LoTi Framework was established through an intensive, highly collaborative developmental and review process involving expert panels comprised of classroom teachers, instructional specialists, and instructional technology coordinators. The *differences in mean scores* was used to determine changes in LoTi levels from Fall, 2006 to Spring, 2007.

4) The *differences in mean scores* was calculated for Sheridan Elementary School to determine whether the mean LoTi levels of targeted staff members changed from Fall 2006 to Spring 2007 in 4<sup>th</sup>-5<sup>th</sup> Science classrooms.

### **Current Instructional Practices (CIP)**

Structured classroom observations based on the Current Instructional Practices (CIP) Framework (Appendix C) were used to determine changes in targeted staff members' CIP intensity level from Fall, 2006 to Spring, 2007. (Appendix B) National Certified LoTi Trainers conducted these classroom observations using a standard set of CIP characteristics or "look-fors." Content validity of the CIP Framework was established through an intensive, highly collaborative developmental and review process involving expert panels comprised of classroom teachers, instructional specialists, and instructional technology coordinators. The *differences in mean scores* was used to determine changes in CIP Intensity levels from Fall, 2006 to Spring, 2007.

(5) The *differences in mean scores* was calculated for Sheridan Elementary School to determine whether the mean CIP Intensity level of targeted staff members changed from Fall 2006 to Spring 2007 in 4<sup>th</sup>-5<sup>th</sup> Science classrooms.

## SECTION FIVE: RESULTS

### Results: TAKS – Science

Target Goal: Improve student achievement in 5<sup>th</sup> grade science based on the TAKS.

*Figure A: 5<sup>th</sup> Grade Science Summary- Met Standard*

Subject	2005-2006 (Met standard)	2006-2007 (Met standard)	Statistically Significant Difference in Percentage Meeting the Science Standard from 2005-06 to 2006-07? **
Science	114 (68.3%)	159 (82%)	YES (p = .003)

\* Based on t test for percentages. A p-value of  $\leq .05$  is considered statistically significant.

Discussion: Figure A displays student achievement data on the Science TAKS for 5<sup>th</sup> Grade at Sheridan Elementary School. The data reveals both the number and percentage of 5<sup>th</sup> grade students who achieved the *Met Standard* status for the 2005-06 and 2006-07 school years. Based on Figure A, 68.3% or 114 5<sup>th</sup> Grade students achieved the *Met Standard* classification during the 2005-06 school year. During the 2006-07 school, 82% or 159 5<sup>th</sup> grade students achieved the *Met Standard* classification for the Science TAKS. The recorded differences in science achievement scores for students achieving the *Met Standard* status were statistically significant. The results showed a 13.7% increase in students achieving the *Met Standard* classification from the 2005-06 school year to the 2006-07 school year.



















