

Background

The *American Recovery and Reinvestment Act of 2009* (ARRA) included a \$650 million allocation in ESEA Title II, Part D, commonly referred to as the *Enhancing Education Through Technology* program (EETT). This case study was prepared by the State Educational Technology Directors Association (SETDA) – the principal association representing the technology leadership of state and territorial departments of education – to provide an example of ARRA funds working at the district and classroom level that creates effective, viable, and robust reform in education, and improves the way teachers teach and students learn.

Texas’s EETT Competitive Grants

The Texas Education Agency distributed ARRA EETT funds through the Target Tech in Texas (T3) Collaborative Grant-American Recovery and Reinvestment Act of 2009. “Target Tech” is the highest level of technology integration progress according to the Texas Campus and Teacher School Technology and Readiness (STaR) Chart. The purpose of the T3 grant was to encourage the use of educational technology tools to improve teaching and learning.

Think Forward, Project-Based Learning Institute Manor Independent School District, Texas October 2009-October 2011

Think Forward, Project-Based Learning (PBL) Institute is a dynamic professional development program designed to train educators in technology use, best practices in PBL, leadership, and 21st century skill applications. The professional development offered to K-8 teachers in the Manor Independent School District (MISD) and to high school teachers in Harlingen Consolidated Independent School District (HCISD) teachers included face-to-face training and follow-up, job-embedded coaching.

Demographics

MISD is located just outside the city limits of Austin, Texas. The City of Manor was established in the mid to late 1800s. By the early 1900s, it was a hub for the central Texas cotton and railroad industries. Today, Manor plays a key role in the Texas technology industry and is home to corporate offices of Applied Materials and Samsung. The City of Manor is growing rapidly. As a result, MISD is experiencing a phenomenal growth in student enrollment with 80% growth from 2004 to 2008. The enrollment for 2011-2012 is currently at 7,600 students in twelve schools with 82% qualifying for the free or reduced lunch program.

Project Description

In 2007, MISD received a four-year Texas STEM grant to integrate technology and PBL at the Manor New Technology High (MNTH). The enormous success of the program resulted in above-average standardized test scores, high attendance rates, and a 100% completion rate in 2010, compared to Manor’s traditional high school’s 82.4% completion rate. However, while MNTH was excelling, other campuses in MISD were continuing to struggle with 2 of its 11 other campuses receiving the state's lowest rating. With the use of T3/ARRA funds, MISD sought to expand the use of project-based learning through the establishment of the Think Forward: PBL Institute. Teachers applied to participate

ARRA EETT Grant Details	
Grant Focus	Deeper Learning/Project-based Collaborative Learning and High-Access, Technology-Rich Learning Environment
Beginning/End Date of Grant	October 1, 2009-October 30, 2011
Locale	Rural
Funding	\$964,299 Federal Funds \$700,000 Local Funds
Grade Level (s)	K-12
Number of Teachers Impacted	44
Number of Administrators Impacted	12
Number of Students Impacted	1075

in the program and upon completion of the four-day institute received a technology package for classroom use. The first MISD cohort included two teachers from each elementary and middle school campus. Subsequent cohorts trained additional teachers from these campuses, as well as counselors, campus principals, central office curriculum staff, and all department heads. Each classroom package included a teacher laptop, four classroom laptops, and five iPod Touches. Additionally, classrooms not already equipped with interactive whiteboards or projectors were provided a projector and whiteboard. The four-day Think Forward: PBL Institute provided instruction in basic technology use, PBL, and technology integration from MNTH teacher mentors. After the Institute, attendees received ongoing, job-embedded support from their designated mentor. The selected MNTH teacher mentors were identified as effective in the implementation of PBL based on a track record of student success. Prior to the initial Institute, the mentors were provided professional development related to effective adult learning techniques, including successful mentoring practices. While 29 teachers were trained as part of this grant, additional teachers attended the Institute using local funds. By the end of the grant period, all fourth and fifth grade teachers, special education inclusion teachers, middle school math teachers, district curriculum staff, school administrators, and central office administrators received the training. The focus of the administrator strand training was to eliminate any barriers toward successful PBL implementation. The curriculum staff received training to ensure that curriculum, assessments, and professional development sessions provided by

the districts supported PBL. MISD also partnered with HCISD to provide training for teachers and to establish an inter-regional partnership. Fifteen Harlingen teachers attended the original institute. Approximately one month later, MNTM mentors visited the HCISD teachers for two days to offer classroom support. Mentors also offered support throughout the school year via email and video conferencing. Approximately 200 educators have participated in the Institute.

Project Implementation

Participants received an initial four-day intensive training during which they each developed a project for their classrooms and shared with the group. The training began with a review of basic technology use and an introduction to PBL.

Participants also observed classes at the successful MNTM and identified key elements of PBL in practice. On the second day, participants explored how to create a PBL project, including managing collaborative student work and using rubrics to determine student progress toward state standards. On the third day, participants learned how to scaffold student activities with continued work on the project in development. On the final day of the institute, mentor teachers conducted workshops providing guidance tailored to the individual needs of the participants based on their content areas and grade levels. Also, participants shared their individual projects and received feedback on the next steps of implementation. Upon returning to the classroom, teachers implemented their project with continued support from their mentors. Mentors and participants continued to interact throughout the school year through site visits, online learning communities, lesson plan development, and phone and email support. Teachers posted projects on a project wiki as a way to share and reflect. This content is now available for all MISD and HCISD teachers for future implementation.

The Institute provided new opportunities and methods to engage my students. Students perform better when their work is more meaningful to them.

-Fourth Grade Teacher

Classroom Examples

- In a fourth grade Social Studies class, students worked in small groups to explore how the media covers news stories, and they created their own newscast. Using media coverage of the Gulf of Mexico oil spill, the teacher and students discussed and viewed news videos. Using teacher-provided rubrics, students evaluated news stories for content, location, expert credibility, and reporting techniques. Next, in small groups, students worked to create their own newscast of the Gulf oil spill. They researched facts, wrote a script, created props, and practiced their newscast. Throughout the group work, students used a wiki to share and collaborate information. This allowed the teacher to check in on their progress. Student groups filmed their newscast, and all newscasts were shared with the class and posted online. Throughout the project, the teacher also used the interactive whiteboard to share videos, rubrics, and final products. The project closed with teams evaluating

their process and product and celebrating with a "wrap" party. Some of the products were posted on the MISD website and on individual teacher websites.

- In fourth grade math and reading, students received a special request from the third grade team. The fourth graders were asked to create a book to help third graders learn multiplication. The book was to contain a cover, title page, table of contents, numbers, words, and drawings to represent the multiplication tables, properties of multiplication, and tips for learning the multiplication tables. To begin, fourth grade



students explored websites about book making and ideas for creating engaging publications. Students also read various picture books and examined the pictures, amount of text on a page, and other elements of picture book design. After making decisions on the type of book to create, students storyboarded their ideas and focused on how to present the math content via an online tool. Finally, students created their books using online resources and desktop publishing tools. The books were finalized and shared with third graders.

Evaluating Effectiveness

The external evaluator, Educational Research Institute (ERI), assessed and measured performance measures through periodic surveys and observations of students, parents, and teachers. While some expectations were not fulfilled, the effort of increasing technology integration and providing teacher professional development was achieved. The percentage of students whose use of technology literacy increased because of the grant was 100%. The number of campuses that improved their STaR Chart level, target goal of eight, was achieved. See "Resources" below for access to full evaluation report.

Moving Forward

The Think Forward, PBL Institute continues to thrive. The program is currently being sustained with local funds. By 2012, the majority of MISD teachers will have participated. Using Texas Title I Priority Schools funds, high school teachers in the two other high schools of MISD will receive training at the Institute in 2012.

Resources

Manor Independent School District
<http://manorisd.net/>

Harlingen CISD and Manor ISD (T-3) Final Program Evaluation
<http://tinyurl.com/7bj8e89>

Texas Education Agency
<http://www.tea.state.tx.us/>

SETDA ARRA Information and Resources
<http://setda.org/web/guest/ARRAresources>