

## 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 to create effective, viable, and robust reform in education and improving the way teachers teach and students learn.

## South Carolina’s EETT Competitive Grants

South Carolina’s EETT ARRA competitive grant program focused on increasing achievement and technology literacy and providing new applications of technology to enable teachers to improve student performance. Professional development provided teachers and administrators with the ability to integrate technology and align instruction with state academic content through high-quality professional development programs.

## iLearn 21

### Lexington School District Two, South Carolina

August 2010-June 2012

The iLearn 21 program addressed the need to increase teacher and student technology proficiency levels and to integrate technology into the core content areas of math, science, social studies, and language arts in eight targeted schools. By providing a comprehensive professional development program and ongoing school-based support, teachers gained knowledge and experience in planning dynamic, technology-rich lessons.

## Demographics

Lexington School District Two is a diverse school district serving almost 9,000 students in 17 schools. The district is located in West Columbia and is in close proximity to the capitol thus maintains a small town feel. Seven out of the nine elementary schools qualify for Title I funding, and one of the three middle schools is also a Title I school.

## Project Description

The grant provided funds to purchase 1-to-1 handheld devices, iPod Touches, for all eighth grade students in three middle schools. The iPod Touches were assigned to individual students for use throughout the school day; however, they were not provided 24/7 access to the devices. Eighth grade teachers also received a laptop. Class sets of iPod Touches were also provided to ninth grade mathematics classes and participating teachers in three elementary schools. Over 1,000 iPod Touches were integrated daily into instruction to target 21st century skills while addressing core content. Over the 2 years of the program, 75 participating teachers received professional development to help ensure seamless technology integration. Teachers received face-to-face training from contracted trainers and the district technology coach. As well, a school-based coach was assigned to each participating school to provide ongoing support throughout the school year. Each teacher received a minimum of 20 hours of coaching and support during the school year.

ARRA ETT Grant Details	
Grant Focus	Technology Coaches and High-Access, Technology-Rich Learning Environments
Beginning/End Date of Grant	August 1, 2010-June 1, 2012
Locale	Suburban
Funding	\$240,000
Grade Level (s)	K-9
Number of Teachers Impacted	75
Number of Administrators Impacted	12
Number of Students Impacted	1,350

## Project Implementation

In the winter of 2010 and 2011, all eighth grade teachers received one full day of professional development on their new laptops. Training included basic functions and applications of the laptop. The eighth grade teachers and additional participating teachers also attended a one-day training session with the handheld devices. Teachers were grouped by content area and were trained not only on how to use the device but also how to identify and integrate appropriate apps for their content area and grade levels. Lessons were demonstrated, and teachers finished the day by designing a lesson to be used in their classroom. Ongoing professional development was conducted

In the two and a half years that we've used the iPod Touch technology as a primary classroom tool we have transformed not only the way teachers think about teaching but the way students think about learning.

- Mr. Kinnett, Lexington Two  
Teacher

quarterly by the district technology coach, which included instruction of Web 2.0 tools and other classroom applications, including Google Docs, Glogs, Word Clouds, StoryKit, Edmodo, and Moodle. Teachers used Google Docs and Google Mail with students. This provided students 24/7 access to their work and opened a new line of communication for students and teachers. Students also used Google Docs to collaborate on projects and post documents to share with their teacher. The students emailed these assignments from their handheld devices. In one middle school, students used their iPod Touches to access Google Docs, and in the other schools, students used computers in a lab setting.

Teachers also received support from a school-based technology instructional specialist, typically the school's media specialist, who served the role of coach. These school-based coaches met with participating teachers weekly to provide support and professional development. Together they examined best practices, apps, and lesson planning. The school-based technology coaches also received coaching and professional development on a monthly basis using the Microsoft Coaching model. Coaches and teachers used Google Docs to collaborate, and participating teachers were required to share at least one lesson per quarter. Final lessons were posted on the statewide media share of Discovery Education United Streaming.

### Classroom Examples

- In an eighth grade science class, students worked in groups to create survival videos after crash landing on a planet in our solar system. Using the internet, students researched the conditions of the different planets in the solar system. After the research, students wrote scripts about life on the selected planet and planned their video production. The performances were recorded on a green screen using their iPod Touches. Students used iMovie to edit the videos, including adding backgrounds of the planet. The completed videos were posted on Discovery Education United Streaming media share and linked to the teachers' web page. Prior to the grant, students completed worksheets about the planets' composition.
- Second grade students at the Early Childhood Center used iPod Touches to improve reading fluency. During a typical week, students used the iPods on Monday to record their book of the week. When the students finished recording, the teacher used the recording to conference with the student and identify areas of improvement and strength in fluency. Together, the teacher and student set goals for the week's reading. Throughout the week, the students then practiced the reading using the iTalk app on the iPod and rated their performance. At the end of the week, the teacher conferenced with the student again to review the reading and goals. The technology offered an accessible tool for the student to use and practice reading, and it contributed to a richer dialogue between the student and teacher.

### Evaluating Effectiveness

South Carolina uses the ePortfolio technology proficiency system to track technology literacy results. Due to this program, the district saw an increase in technology proficiency in students and teachers. In addition, the district also saw improvement in state

standardized test score in situations where technology integration has taken place.

#### District Data

- Student technology literacy scores improved 15% from the pre- to post-test in the 2010-2011 school year.
- In one 7th and 8th grade math class, 27 students moved from below-average to proficient.
- Discipline referrals at one of the participating middle schools decreased by 40%.

### Moving Forward

Due to the success of this program, Lexington School District Two wishes to continue this rollout of a 1-to-1 for every student in the district. Other grant sources are being sought, and in some schools, Title I funds have been used to expand the program. Lexington School District Two was named an Apple Distinguished Program recipient for the 2010-2011 and 2011-2012 school years and is determined to continue this level of work.

### Resources

Lexington Two School District  
[www.lex2.org](http://www.lex2.org)

South Carolina Department of Education  
[www.ed.sc.gov](http://www.ed.sc.gov)

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