Background

The 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.

Georgia's EETT Competitive Grants

Georgia's ARRA EETT competitive grants sought to create model eTextbook environments to be leveraged across all school districts in Georgia. The focus was on teacher professional development in the use of digital content to differentiate instruction, improve student engagement, and increase student technology literacy by providing students with the opportunity to use digital tools and resources. Programs also concentrated on parent engagement by providing training sessions that demonstrated the purpose of eTextbooks at home and school.

E-Textbook Program
Thomasville City Schools, Georgia
June 2010-June 2013

The goal of Thomasville High School and the e-Textbooks program was to move from traditional textbooks to digital content to help increase student achievement by engaging students and differentiating instruction. This grant also addressed the problems of low levels of student technology literacy and lack of adequate technology resources.

Demographics

While located in a rural area of southwest Georgia, Thomasville City Schools is one of the last city school systems in Georgia. The school system has a charter from the city but functions as other systems in Georgia with an elected school board and appointed superintendent. There is one high school in Thomasville with 475 students, and the Scholars Academy educates students in grades 6 to 12, of which 319 were impacted by this grant. Fifty-five percent of students qualify for free lunch and 8% qualify for reduced lunch. The graduation rate for Thomasville High School has fluctuated in recent years; graduation rate was 60.7% in 2007-2008, 74.9% in 2008-2009, and 72.7% in 2009-2010.

Project Description

Thomasville High School students performed at a basic level of technology literacy and lacked access to technology tools. While there were 39 desktop computers and 43 laptops prior to the grant, these were scattered among classrooms with a majority of the classrooms only having one or two computers to share amongst the students and teacher. Eight of the classrooms had interactive whiteboards. On the 21st Century Skills Assessment Pretest, the average score at Thomasville High School was 275 basic proficiency, in a scaled score range of 155-450. With this grant, a 1-to-1 program was implemented for all 9th to 12thgrade students in Thomasville High School and the Scholars Academy, as well as 8th grade students participating in the Scholars Academy program. Teachers were also supplied with a netbook. In the high school, 593 notebooks were integrated, along with 56 projectors, 44 whiteboards, and 149 individual student response devices. Subscriptions to Discovery Education, Scholastic, and Gizmos provided access to interactive digital content in all content areas and e-textbooks for most core subjects. Wireless infrastructure in the Thomasville High School and Scholars Academy, located across the street from the high school, was improved with grant funds by providing all new access points as well as a management system. In addition, a partnership was established with the City of Thomasville to set up free wireless access points throughout the city in the business corridor and at the Boys and Girls Club since the city was not able to provide free or reduced cost internet access for students at their homes. Professional development was key to the success of the program. The on-site technology coordinator and media specialist provided professional development throughout the school year. After-school sessions and just-in-time training provided opportunities for teachers to explore tools and devices for integration. More intensive training was offered during the summers.

ARRA EETT Grant Details	
Grant Focus	High-Access, Technology-Rich Learning Environment and Digital and/or Open Content
Beginning/End Date of Grant	June 10, 2010-June 30, 2013
Locale	Rural
Funding	$1,335,184
Grade Level (s)	8-12
Number of Teachers Impacted	90
Number of Administrators Impacted	5
Number of Students Impacted	800

Project Implementation

During the summer of 2010, interactive whiteboards, mounted projectors, document cameras, and sound systems were installed in all classrooms. The netbooks were prepared with the necessary software for teachers and students. In August 2010, netbooks were distributed to teachers first, and were then issued to all 9th to12th grade students and 8th grade Scholars Academy students. Students and parents participated in an orientation, which included information on care and maintenance of the notebook, cyber security, and acceptable use policies. Fourteen orientation sessions were offered and a video was produced for parents who were not able to participate in a session or transferred into the school later in the school year.

> Students are engaged and eager to participate in classroom activities when using technology. Students appear to retain information better when it is presented in different ways, such as on the interactive whiteboard, on their notebooks, or on the internet.
> - Thomasville High School Teacher

During the school year, teachers participated in after-school training sessions and just-in-time training. On staff, the media specialist, technology coordinator, and technician provided ongoing support to teachers and students. During the first year of implementation, teachers worked together and with the technology support team to learn how to integrate the technology and e-Textbooks. At the end of the school year, a three-day intensive content and unit planning workshop was held. Representatives from Discovery Education, Scholastic, and the Georgia Educational Technology Center helped teachers work with the digital content and plan units. In the 2011-2012 school year, two additional part-time specialists, formerly of the Georgia Educational Technology Center, joined the staff to assist and support teachers through coaching, modeling lessons, and co-teaching.

Classroom Examples

- The digital content has had a huge impact on mathematics classes. Prior to the grant, students worked out of the textbook. Gizmos and interactive simulations offer opportunities for students to digitally simulate and alter data and functions. The *Quadratics in Factored Form* Gizmo shows vertical and horizontal shifts as well as shrinks and stretches based on how the numbers are changed in an instant. Students change the data to see the effects graphically, and make predictions and test their projections. To see the changes via technology is dramatically faster than graphing several quadratics on paper and viewing the results.
- In the US history classes, the notebooks were used for a variety of tasks. For example, in reviewing the Reconstruction era and preparing for the test, each student was assigned a topic and completed a slide presentation. Slides were uploaded and combined via Google Docs. Students were able to use the combined presentation to review for the test. Digital content available on the iCivics website (http://icivics.org/) created by the United States Supreme Court, was also used throughout the course which helped to enhance the lessons and provide real world examples.

Evaluating Effectiveness

Student technology literacy as well as teacher technology proficiency is being measured by Thomasville City Schools through Learning.com's 21st Century Skills Assessment and WayFind Teacher Assessment. Student achievement is measured through the Georgia End-of-Course Tests and Georgia High School Graduation Tests. No gains have been realized yet in the second current year of implementation. Through informal discussions with teachers, it has been reported that students are more engaged in class. In walking through classrooms, engagement is apparent as students interact with the content available via classroom whiteboards, use netbooks for collaborative group work, and access digital resources.

Moving Forward

The citizens of Thomas County passed an Educational Special Purpose Local Option Sales Tax (ESPLOST) in November 2011 to take effect in January 2013. The ESPLOST will provide funds to aid in keeping the infrastructure and technology equipment, including netbook upgrades and replacements as needed. Also, the school system will continue to fund instructional technology and infrastructure support by system employees through state and local funds.

Resources

Thomasville City Schools
http://tcitys.org

Georgia Department of Education
http://doe.k12.ga.us/

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