



Cisco's Global Education group is actively engaged in the work of transforming education systems to meet the needs of 21st century learners, educators, and organizations. This transformation will require a shift in the way teachers teach, leaders lead, and students learn.

Case Study



Comprehensive Professional Development Program Spurs Integration of Technology into Curriculum

In 2005, the Lamar County School District in southern Mississippi did not have an official program to help teachers develop technology skills and integrate technology into the learning environment. The small, forward-thinking district had purchased a substantial amount of technology. However, teachers did not know how to use it and administrators were not sure how to guide them, so students were not getting the full benefit of the investment.

In response to this challenge, the district conducted a survey to assess the extent of teachers' computer skills. Based on the results, district administrators asked Lamar County instructional technology specialists to design a professional development program that would provide basic and advanced technology skills training for all teachers in the district. District teachers had nearly completed the skills training when Hurricane Katrina struck in August 2005.

Lamar County School District

LOCATION:

Southern Mississippi

NUMBER OF SCHOOLS:

13

NUMBER OF STUDENTS:

>7,500

GRADES:

K-12

SCHOOL STRUCTURE:

Rural and suburban

PERCENT OF STUDENTS ELIGIBLE FOR FREE OR REDUCED LUNCH:

45

The 21S Holistic Approach to Education Reform

After Hurricane Katrina struck in August 2005, Cisco unveiled an initiative, known as the 21st Century Schools Initiative (21S), to help rebuild the devastated Gulf Coast schools and communities. In addition to equipping each school with instructional technologies and advanced networking equipment, the focus of 21S is to develop a blueprint for 21st century education based on a holistic approach to education reform, supported by Cisco's business experience in management and system change.

21S is a multiphase initiative that aims to create a sustainable, scalable, and replicable model of education reform that will extend beyond Mississippi and Louisiana. The 21S model incorporates transformative technology, tools, and training; backed by the expertise of a dedicated technology and business partner. Support for every implementation is provided by an onsite Cisco Fellow.



In early 2006, the Lamar County School District was invited to participate in the Cisco® 21st Century Schools Initiative (21S). By providing support teams and funding additional resources and new technologies, the 21S program helped Lamar administrators expand upon their professional development program. The expanded program helped teachers develop new technology skills by focusing on integrating technology effectively into the pedagogy and curricula. By summer, training was under way for a portion of the district's teachers. Sonya Gates was the sole instructional technologist assigned to work with them.

A Mission to Create Lifelong Learners

Lamar's professional development program was designed with one primary goal in mind: "We want to empower all students to become passionate, lifelong learners and enable them to create their own futures and contribute cooperatively to a diverse and changing world," explains Dr. Ben Burnett, superintendent of the Lamar County School District. So the challenge was to help teachers integrate technology into the pedagogy and curriculum in a way that engages students in the learning process.

The first step was to poll the students in the district to determine what they are passionate about as well as their preferred learning styles. Not surprisingly, administrators and teachers found that students are enthusiastic about their cell phones, text messaging, and email. They also discovered that most of the students are visual learners. The results of the poll made it clear that students would benefit most from having teachers present content visually using interactive technologies. Based on these results, the district chose to integrate several technologies into the learning environment. These technologies included interactive white boards, student response systems, computers, the Internet, podcasts, blogs, and productivity software for word processing, spreadsheets, presentations, publishing, and other functions. A comprehensive professional development program was designed to help teachers integrate these technologies into the curricula in a way that supported students' learning preferences.

To stay within budget, administrators instituted a grant program. Instead of providing technology and professional development for every teacher across 13 schools all at once, the district phased in the technology and training by requiring teachers who were interested in participating in the 21S program to submit a grant proposal. By the summer of 2006, 33 teachers from all grade levels were ready to participate in the program.

A Focus on One-on-One Training

The district provided training sessions on the effective use of new technologies, as well as a six-week online learning program called "Teaching for Understanding," which is offered by the Harvard Graduate School of Education. The program helps educators create lessons, learning materials, and learning environments that promote engagement and understanding. Throughout the year, Gates focused on reinforcing what teachers had learned and providing as much face-to-face interaction and support as possible. She also concentrated on teaching technology skills in the context of lessons and projects that the teachers were designing for their classes.

Gates split the teachers into groups of three or four, and worked with them to complete lesson plans that incorporated best teaching practices and technologies. She also scheduled group training sessions at each school that occurred every other week, and one-on-one sessions that took place during teachers' planning periods every two weeks.

"I made a habit of asking teachers every week what type of training they needed so that I could tailor the one-on-one sessions and even the small group trainings to their needs," says Gates. "This helped foster a passion on their part for integrating technology into the classroom."

Spontaneous Collaboration Signals Success

By the second year of the professional development program, teachers were initiating voluntary informal training sessions after school with other district teachers who wanted to learn more about integrating technology into their lessons. "It's wonderful to see such spontaneous enthusiasm on the part of the teachers," Gates adds. "Their eagerness to share what they've learned allows us to effectively scale professional development to all of the schools in the district, because we know qualified mentors are available at each of the schools."

Lamar administrators continue to work diligently to make the mentoring component a more structured part of the professional development program. For example, the district now compensates teachers for the cost of attending some of the more attractive annual teacher conferences in exchange for them becoming professional development mentors in their schools. To date, approximately 200 teachers have completed the professional development program.

Another outcome of the program has been a higher proficiency rate on state tests for students as a whole. Two U.S. history classrooms have experienced 100 percent student passing rates, with more students scoring as proficient and advanced than in years past.

And finally, teachers who have participated in the program have become much more comfortable with computers. "When teachers are comfortable with technology, it allows them to bond more with students, because most students enjoy technology," Gates notes. Gates has also observed teachers asking students for their help in using the technology, which she believes deepens their bond as well as the students' engagement.

Reflecting on Best Practices

With several years of experience in developing comprehensive training programs like the one in Lamar County schools, Gates has identified four success factors for a professional development program: "It must have leadership support, it needs to be consistent and frequent, it must be tailored to what individual teachers need, and it should show teachers how to tap into what matters to kids," says Gates. "These are the prerequisites for helping teachers cultivate a passion for learning in their students," she concludes.

For more information about Cisco Global Education, please visit our website at <http://www.transformgloaleducation.org>.



"We want to empower all students to become passionate, lifelong learners and enable them to create their own futures and contribute cooperatively to a diverse and changing world."

Dr. Ben Burnett
Superintendent
Lamar County School District

Cisco Recommended Ecosystem Partners for System Transformation

Information on Integrating Technology

- **Metiri Group**
(www.metiri.com)
Education consultant that provides a broad range of services that empower educators to advance effective teaching and learning, use technology in powerful and meaningful ways, and foster 21st century skills.
- **November Learning**
(www.novemberlearning.com)
An organization that promotes the effective use of information and communication technologies to support and enhance learning for children and communities
- **Partnership for 21st Century Skills**
(www.21stcenturyskills.org)
An advocacy organization that is focused on infusing 21st century skills into education; Cisco is a founding member
- **WIDE World – Harvard Graduate School of Education**
(<http://wideworld.pz.harvard.edu>)
Offers online learning programs for professional development and using technology in classrooms

Online Content and Tools

- **Discovery Education Streaming**
(<http://streaming.discoveryeducation.com>)
A digital video-on-demand and online teaching service to help improve students' retention and test scores
- **ePals Global Community**
(www.epals.com)
A community of collaborative classrooms engaged in cross-cultural exchanges, project sharing, and language learning
- **History Channel**
(www.history.com)
Television station that offers free programming related to history and culture
- **Jing Project**
(www.jingproject.com)
An online resource that offers free software that allows teachers and students to capture and share videos and other content
- **NASA Education Program**
(education.nasa.gov)
Program that provides activities and information related to science, technology, engineering, and mathematics
- **National Geographic**
(www.nationalgeographic.com/education/)
Online resource for lesson plans, activities, and information related to geography, history, culture, animals, and other topics
- **Ning**
(www.ning.com)
An online platform that allows individuals and groups to create their own collaborative networks
- **Promethean Planet**
(www.prometheanplanet.com)
An online resource that includes lessons and professional development materials related to interactive whiteboards
- **Smithsonian American Art Museum**
(<http://americanart.si.edu/index3.cfm>)
Provider of education resources such as state standards-based, multidisciplinary lesson plans that span the fields of art, design, science, technology, history, culture, and language arts



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