

# Promising Practices in Information Technology Accessibility in K-12 Education in the Southeast Region



## Sponsoring Organizations

	<p><b>Southeast Disability and Business Technical Assistance Center</b> 490 Tenth Street Atlanta, GA 30318 (800) 949-4232 (V/TTY) (Southeast Region) (404) 385-0636 (V/TTY) <a href="mailto:sedbtacproject@coa.gatech.edu">sedbtacproject@coa.gatech.edu</a> <a href="http://www.sedbtac.org">www.sedbtac.org</a></p>
	<p><b>Center for Assistive Technology and Environmental Access</b> College of Architecture Georgia Institute of Technology 490 Tenth Street Atlanta, GA 30318 404-894-4960 (v/tty) <a href="http://www.catea.org">www.catea.org</a></p>
	<p><b>National Institute on Disability and Rehabilitation Research</b> 400 Maryland Avenue, S.W. Washington, DC 20202-2572 Voice: (202) 205-8134 TTY: (202) 205-4475 <a href="http://www.ed.gov/about/offices/list/osers/nidrr/index.html">www.ed.gov/about/offices/list/osers/nidrr/index.html</a></p>

## Table of Contents

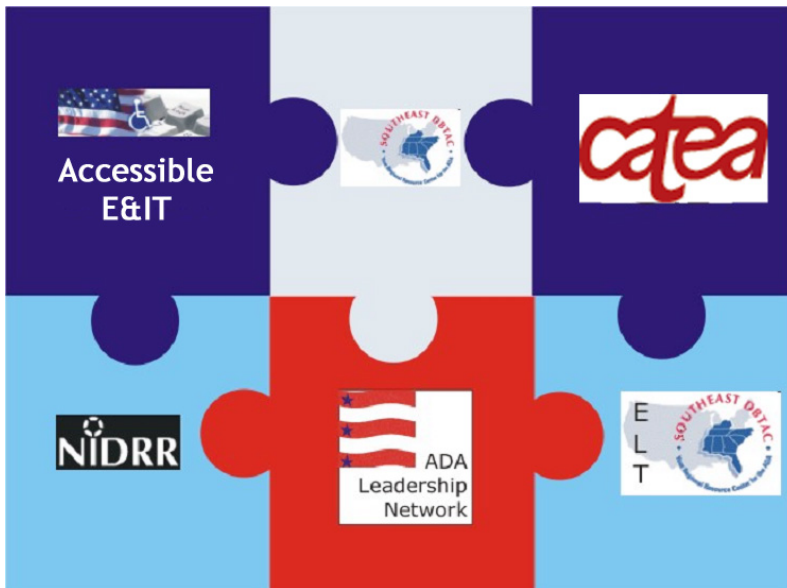
Sponsoring Organizations .....	2
About the Southeast DBTAC .....	4
Promoting the Use of Accessible Information Technology in Educational Settings.....	5
<b>Southeast DBTAC Education Leadership Initiative Projects .....</b>	<b>6</b>
Georgia Committee on Employment of People with Disabilities: Georgia Accessibility Rally.....	6
Kentucky Assistive Technology Service (KATS) Network: Statewide Policy Development .....	8
South Carolina Department of Education: Creating a Model State Education Technology Plan.....	10
Southern Regional Education Board: Quick Reference Guide to Accessible Information Technology.....	12
University of South Carolina Center for Disability Resources: The Work Connection .....	14
West Tennessee Special Technology Access Resource (STAR) Center: Technology Coaches.....	16
<b>Cross-Project Findings.....</b>	<b>18</b>
Need For Increased Technology Knowledge in Classrooms.....	18
Need For High-Level Buy-In.....	18
Need For Effective Standards for Accessibility.....	18
<b>Disclaimer.....</b>	<b>19</b>
<b>Contact.....</b>	<b>19</b>

## About the Southeast DBTAC



The Southeast Disability and Business Technical Assistance Center (DBTAC) is a project of the Center for Assistive Technology and Environmental Access (CATEA). CATEA is located within the College of Architecture at the Georgia Institute of Technology. The Southeast DBTAC is one of ten regional centers funded by the National Institute on Disability and Rehabilitation Research (NIDRR), under U.S.

Department of Education Grant Number H133D010207. The Southeast DBTAC serves an eight-state region, including Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee. The Southeast DBTAC is responsible for providing technical assistance, training and information about the Americans with Disabilities Act of 1990 (ADA). The Southeast DBTAC is also responsible for promoting the use of accessible education-based information technology in the Southeast Region.



This jigsaw puzzle graphic shows the relationship between the national Accessible Electronic and Information (E&IT) program, the Southeast DBTAC, CATEA, NIDRR, the ADA Leadership Network in the Southeast Region, and the Southeast DBTAC's Education Leadership Team (ELT).

# Promoting the Use of Accessible Information Technology in Educational Settings

One of the most powerful trends in education is the widespread use of information technology (IT) in classrooms. The use of laptop and desktop computers, educational software, Internet sites, and even copiers and fax machines in education has provided students with an array of different educational opportunities. However, for IT to work for all students, it must be accessible for people with disabilities.

Universal design is often used in describing accessible IT. This term refers to products that are accessible to people with a wide range of abilities, disabilities, and other characteristics. Universally designed products accommodate individual preferences and abilities; communicate necessary information effectively (regardless of ambient conditions or the user's sensory abilities); and can be approached, reached, manipulated, and used regardless of the individual's body size, posture, motor control or mobility.

As part of its mission to promote the use of accessible education-based information technology in the Southeast Region, the Southeast DBTAC is working with colleges, universities, community colleges and K-12 schools to improve access to information technology for students with disabilities in educational settings. The Southeast DBTAC has been assisted in this endeavor by a 21-member Education Leadership Team comprised of representatives of educational institutions throughout the Southeast Region.

The mission of the Education Leadership Team (ELT) is to promote the use of accessible information technology across educational entities by providing information, technical assistance, and training about universal design and accessible IT for people with disabilities. The ELT recommended the creation of an Education Leadership Initiative (ELI) to facilitate widespread use of accessible information technology in a variety of educational environments, including K-12, post-secondary, distance learning, and adult education. In this Initiative, the Southeast DBTAC has awarded small subcontracts to educational institutions to be used to investigate, demonstrate, implement or model best-practice methods. The subcontracts were offered on a competitive basis for institutions of higher education, school districts, nonprofit organizations, state and local governments, community technology centers, public libraries, centers for independent living, and state assistive technology projects.

The Southeast DBTAC funded thirteen ELI projects over a two-year period. Six of these projects dealt with IT accessibility in the K-12 arena. This report identifies these projects, highlights the development and implementation of each project, and reports on project outcomes. Barriers common to these projects and cross-project findings are also presented in this report.

# Southeast DBTAC Education Leadership Initiative Projects

## Georgia Committee on Employment of People with Disabilities: Georgia Accessibility Rally

### **About the Project**

The Georgia Accessibility Rally was a joint project between the Georgia Committee on Employment of People with Disabilities and Butler New Media, LLC. The Georgia Committee on Employment of People with Disabilities is a non-profit corporation that operates in partnership with the Georgia Department of Education and the Georgia Department of Labor. The Georgia Committee partnered with Butler New Media, LLC, a private company based in Bainbridge, Georgia.

The Georgia Accessibility Rally (GAR) was designed to create new, accessible Internet sites for rural Georgia schools, train students in accessible Web design techniques, and build the capacity for teachers and administrators to create accessible information technology opportunities for all students. The Rally ([www.garally.org/](http://www.garally.org/)) was modeled after similar projects developed by Knowbility (<http://knowbility.org/index.jsp>), a non-profit organization in Austin, Texas. Knowbility hosts “Accessibility Internet Rally” events in a number of cities. In these rallies, teams of professional web developers that include individuals with disabilities compete to create or retrofit websites belonging to nonprofit entities for complete accessibility. Knowbility assisted the Georgia Committee with the original design of the project and provided some initial training materials as well as criteria for evaluation.

Schools selected for the Rally were chosen from schools already participating in the High School/High Tech program—an initiative of the Office of Disability Employment Policy at the U.S. Department of Labor that is designed to encourage students with disabilities to pursue career paths in science, engineering, mathematics and other technologies. Because this highly ambitious program required a great deal of coordination among different sites, the project limited the number of schools participating four teams from three rural high schools. While this project might have had a greater impact if more schools participated, limiting the number of schools led to a more focused and disciplined process.

In the Georgia Accessibility Rally, teams of Georgia High School/High Tech Students and teacher/mentors redesigned an existing school website to make that site more accessible to students with disabilities who use a variety of assistive technologies to access online media. Each team could have no more than 5 students, and all design work had to be done by the students themselves. Two teams from Valdosta/Lowndes County—the Valdosta Cats and the Determined Team—competed against one team each from Albany Westover and Columbus Northside High Schools. The teams were given an online

curriculum, which also included links to many online resources to help them design/redesign accessible websites. The Georgia Committee on Employment of People with Disabilities worked with Microsoft Corporation, Cingular Wireless, IBM, and HiSoftware to provide free copies of HTML authoring and evaluation software tools. Another important step in implementing the project was ensuring that students participating in the rally event had the technologies they needed to develop accessible Internet sites. Butler New Media developed a checklist to assess the readiness of each school to participate in the rally.

The Rally was held from March 1—April 30th, 2004, an extended period of time needed to match the schedules of high school students participating in an extracurricular activity. After the last day of the rally, volunteer judges evaluated and reported on the accessibility of the four newly revised sites. The websites were evaluated on the basis of accessibility, creativity, usability and look and feel.

## Outcomes

The most notable result of the Georgia Accessibility Rally was the creation of four new websites designed for complete accessibility. The four websites were:

- Albany Westover High School - [www.westoverhighschool.com](http://www.westoverhighschool.com)
- Valdosta High School High Tech - [www.garally.org/cats](http://www.garally.org/cats)
- Valdosta High School Vocational Instruction - [www.garally.org/determined](http://www.garally.org/determined)
- Columbus Northside High School - [www.nhspatriots.net/](http://www.nhspatriots.net/)

The project found that the key to ensuring success was to provide intensive, one-on-one training in a computer lab setting for the teacher/mentors. These training sessions, hosted by Bainbridge College and Albany Technical College, introduced teacher/mentors to basic concepts in IT accessibility. The project mentors were K-12 teachers who were already involved in High School / High Tech projects. Several of the teacher/mentors had very little knowledge about designing a website or the barriers that inaccessible Internet sites can pose for students with disabilities. Intensive training conducted by Butler New Media and supported by Southeast DBTAC staff, helped give the mentors the basic knowledge they needed to successfully implement the Accessibility Rally.

Information about the Georgia Accessibility Rally was disseminated in a variety of ways. Butler New Media created and updated a Rally website at [www.garally.org](http://www.garally.org). The website has information about the rally, judging criteria, and a forum for comments. In addition, the Southeast DBTAC highlighted this project on its website at [www.sedbtac.org/ed/whats\\_new/articles.cfm?id=4520](http://www.sedbtac.org/ed/whats_new/articles.cfm?id=4520). The Southeast DBTAC also disseminated information about the Rally throughout the Southeast Region through mass e-mails. Stories about the rally appeared on the websites of the American Association of People with Disabilities, Hi Software, and the International Center for Disability Resources on the Internet. Additionally, events honoring the winning teams were held in Albany, Valdosta, and

Columbus, with sizable local media presence at each event. News stories about the rally appeared in the *Albany Herald* and on WALB-TV.

## Kentucky Assistive Technology Service (KATS) Network: Statewide Policy Development



### About the Project

Kentucky's Accessible Information Technology law, passed in April 2000, requires school districts to ensure that the information technology they use will provide students with disabilities access "equivalent to the access provided individuals who are not disabled" (KRS 61.982). Anecdotal reports, however, suggested that many school districts were not even aware of this law and, of those that were, very few had created formal policies to help implement this requirement.

In response to this apparent need, the Kentucky Assistive Technology Service (KATS) in collaboration with the Kentucky Department of Education initiated the Accessible Information Technology in Schools (AITIS) Project. Core funding for this initiative was provided by the Southeast DBTAC. Its goal was to develop accessibility guidelines, checklists, and other technical assistance materials that could be used to assist school systems in understanding how to fulfill their obligations under Kentucky's Accessible Information Technology (AIT) law.

The project began by creating a *School District Information Technology Accessibility Survey* to provide a snapshot of where Kentucky's schools were in understanding and complying with the AIT law. The survey was designed to gauge the level of awareness and activity surrounding IT accessibility among technology coordinators in Kentucky K-12 schools. It was developed through the efforts of a national advisory panel, with representation from members at the University of Washington, Equal Access to Software and Information (EASI), the Mid-Atlantic Regional Technology in Education Consortium, the Missouri Assistive Technology project, the National Assistive Technology Research Institute at the University of Kentucky, the National Center for Accessible Media, and the Southeast DBTAC. The survey was distributed to information technology coordinators in school districts across Kentucky. A copy of the survey is available online at the KATS website at [www.katsnet.org/ky-aitis-survey.html](http://www.katsnet.org/ky-aitis-survey.html).

First administered in 2004 and repeated the following year, the Surveys traced the increasing awareness among school administrators of the requirements of both Section 508 and the Kentucky AIT. The survey also identified the training and technical assistance needs within the various school districts.



Results of the survey include the following:

- The majority of districts reported that students in the elementary, middle, and high schools were required to use the Internet in the classroom for research and instruction.
- The average number of computers for instructional or library use in Kentucky school districts is 739, with an additional 263 non-instructional computers per district.
- 90% of districts frequently use instructional software in the elementary schools, with 87% frequent use in middle schools and 76% frequent use in high school settings.
- 23% of respondents were unfamiliar with the Section 508 accessibility standards. 26% were unfamiliar with the new Kentucky law requiring accessibility to information technology.
- 17% of respondents reported that their district had a policy in place addressing the accessibility of educational technology products. Only 8% reported having a policy regarding Internet accessibility.
- 35% of districts responding had no standards in place regarding the creation of materials placed on school websites.
- District technology coordinators were cited as mostly being responsible for creating web pages for school district websites. Classroom teachers and students also work to create websites for individual Kentucky schools.

In response to identified needs, the AITIS Project developed the following documents:

- **School District Information Technology Accessibility Policy Matrix**—provides district personnel with citations for the applicable sections of both the Kentucky state law and enforceable Federal regulations. It contains enumerated guidelines and policy language components, and a matching checklist for each guideline subject area.
- **School District Section 508 Technical Standards Checklists**—contains checklists for each subsection of the Federal Section 508 Accessibility Standards to assist school districts in selecting accessible electronic and information technology products that are covered under Section 508.
- **Kentucky Library Information Technology Accessibility Checklist**—contains checklist materials from the Policy Matrix that were revised to deal more directly with library services.
- **TRT Accessible Information Technology Resource Page**—a training resource for Technology Resource Teachers containing an “easy to digest” resource page of some of the most basic accessibility resources.

For more information about the AITIS project, including links to AITIS documents, go to [www.katsnet.org/aitis.html](http://www.katsnet.org/aitis.html).

## Outcomes

Over and above the production and implementation of the Surveys and the resulting technical assistance documents generated by AITIS, the Project has also had a significant impact on policy change within the state. At the K-12 level, the Project has worked with the Kentucky Department of Education to establish criteria for publishers providing electronic files to ensure that they are accessible for students with disabilities. The criteria suggested by the AITIS project were used as the basis of Kentucky's textbook accessibility regulations. The Project also worked with the Kentucky Accessible Materials Consortium to develop a digital content checklist with which to assess all publishers' electronic textbooks submitted for state adoption.

In addition, the AITIS Project worked on accessibility issues related to digital textbook content at the higher education level, including the involvement of the AITIS Project staff in the writing, passage, and continuing implementation of the Kentucky Postsecondary Textbook Accessibility Act. This act requires publishers to provide an accessible electronic version of textbooks and instructional materials upon request.

## South Carolina Department of Education: Creating a Model State Education Technology Plan

### About the Project

In 1998, the South Carolina Department of Education released a new state educational technology plan that contained goals and benchmarks for implementing access to technology in all South Carolina schools. When the plan came up for review and expansion in 2003, the South Carolina Department of Education worked with the Southeast Initiatives Regional Technology in Education Consortium (SEIR\*TEC) to devise a second five-year plan to direct South Carolina's strategic technology development from 2003 to 2008. In this five-year plan, the South Carolina Department of Education included enhanced accessibility to educational technology for students with disabilities as an important addition to the state's existing plan.

With funding provided by the Southeast DBTAC, the South Carolina Department of Education developed the new state plan as a model for other



Digital Resources Enabling Achievement and Milestones

states in including access to information technology for students with disabilities in the planning process. The South Carolina Assistive Technology Project also provided valuable assistance in developing the model plan. The final document contains guidelines for school districts to develop their own educational technology plans that include assistive technology and access for students with disabilities as integral components of the overall plan. The result of this effort is a goals-based, measurable plan that will assist districts in meeting technology goals for the twenty-first century as well as meeting the new federal No Child Left Behind standards.

The completed document, *South Carolina State Technology Plan 2003–08: Realizing the Dream*, is available online in HTML format at: [www.myschools.com/offices/tech/techplan/sctp2003\\_08/toc.htm](http://www.myschools.com/offices/tech/techplan/sctp2003_08/toc.htm). The plan includes the following elements regarding assistive technology and accessible information technology for students with disabilities:

- Increase student achievement through the use of technology, including assistive technology, by maximizing community involvement and community partnerships.
- Recognize and promote best practices that successfully integrate technology, including assistive technology, into the curriculum.
- Engage students in authentic learning activities that are aligned with state standards and that integrate technology, including assistive technology, into the core content.
- Create and use lesson activities in which students employ a variety of technology tools, including assistive technology, to complete authentic multidisciplinary tasks.
- Provide appropriate accommodations for students with special needs when conducting tests, including standardized tests, using technology.
- Provide students with an enhanced learning environment through technological tools, including assistive technology, that are designed to promote high academic achievement.
- Appoint or hire district-wide school technology coaches to offer guidance to schools, educate teachers, and help ensure that lesson plans and activities incorporate a variety of technologies, including access to information technology.
- Provide training needed to ensure the accessibility of electronic and information technology to students with special needs.
- Increase the ability of school districts to design web pages compliant with Section 508.

- Districts should maintain a strategic plan for acquiring and implementing technology, including assistive technology, for universal access to network resources.

In order to disseminate the information in the state technology plan, and to provide school districts with a better knowledge of how assistive technology is used in the classroom, the South Carolina Department of Education developed a CD-ROM to be distributed in all South Carolina school districts. The CD-ROM was developed in partnership with the South Carolina Assistive Technology Project (SCATP) and South Carolina ETV, South Carolina's statewide public broadcasting network.

The CD-ROM is designed as a way to deliver information about assistive technology as well as an example of accessible information technology. The CD-ROM was developed using Macromedia Flash and contains video clips showing the use of accessibility in the classroom. The Southeast DBTAC helped evaluate the CD-ROM and provided funding for a Georgia Tech graduate student to provide captions and transcripts for the video clips used in the CD, as well as to provide additional information about accessible information technology. Taking advantage of materials developed by other projects in the Educational Leadership Initiative, the Southeast DBTAC used the **Quick Reference Guide** developed by the Southern Regional Education Board (see below) as the basis for information about accessible IT.

## Outcomes

The CD-ROM is a valuable resource for school districts in South Carolina as well as in other states, providing them with information about assistive technology and accessible information technology resources. Additionally, South Carolina's inclusion of information technology accessibility and assistive technology in its state education technology plan can serve as a model for other states, each of which is responsible developing its own technology plan. To date, many states have not addressed the needs of students with disabilities in developing their plans. By following the example of South Carolina, more states can develop educational technology plans that focus attention on access to information technology for students with disabilities.

## Southern Regional Education Board: Quick Reference Guide to Accessible Information Technology

### About the Project

The Southern Regional Education Board (SREB) is an interstate compact among 16 Southern states to help leaders in education and government work

## Accessible Information Technology Resources

*A Quick Reference Guide  
for Educators*

Promising Practices in the Southeast Region

cooperatively to advance education and improve the social and economic life of the region. The 16 state members of the SREB are: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The SREB provides leadership, goals, and policy guidance for education at all levels, including elementary, secondary, post-secondary, and graduate education. The SREB ([www.sreb.org/](http://www.sreb.org/)) is headquartered in Atlanta, Georgia.

The SREB applied for a Leadership Initiative to develop a **Quick Reference Guide**. The **Guide** is designed as a one-piece brochure that provides classroom teachers with information and resources on the use of accessible information technology in the classroom. A major problem in discussing accessible information technology (AIT) in K-12 is separating assistive technology (AT) from accessible information technology. Therefore the **Quick Reference Guide** explains the difference between AT and AIT, and how accessible AIT works with AT to provide access for students with disabilities.

The **Quick Reference Guide** is designed to meet the needs of a wide audience of stakeholders, with sections providing information designed for parents, students, teachers, and technology specialists. The **Guide** also provides Internet links to validation programs that help spot potential barriers within school websites. Additionally, it explains the legal requirements for accessibility in information technology.

The **Quick Reference Guide** was disseminated in a number of ways. . The **Guide** was made available online at the SREB website, at: [www.sreb.org/programs/EdTech/pubs/PDF/AccessibleInformationTechnologyResources.asp](http://www.sreb.org/programs/EdTech/pubs/PDF/AccessibleInformationTechnologyResources.asp). SREB also distributed copies through its sixteen-state network The Southeast DBTAC disseminated the **Quick Reference Guide** through its Education Leadership Team, its affiliate network, and through presentations at regional and national conferences. In addition, the Southeast DBTAC shared the **Quick Reference Guide** with the nine other DBTACs at a national conference on EBIT accessibility.

Information about the **Quick Reference Guide** was also distributed through the NEON (News for Educators Online Now) e-mail list. The NEON list is compiled by the Southeast Initiatives Regional Technology in Education Consortium (SEIR\*TEC) program, a regional network of education organizations with an interest in promoting technology. SEIR\*TEC adapted information about the **Quick Reference Guide** information in a bookmark, which it distributed through its network. The bookmark is available online at [www.seirtec.org/access/webaccess.htm](http://www.seirtec.org/access/webaccess.htm).

## Outcomes

The **Quick Reference Guide** is an excellent resource that can be used by state and local education agencies across the United States, as well as by students with disabilities and their parents. As such, it will play a vital role in increasing access to educational-based information technology for students throughout the country.

## University of South Carolina Center for Disability Resources: The Work Connection

### **About the Project**

The Work Connection is a joint project developed by a University Center for Excellence, a South Carolina School District, and a Workforce Investment Board. The Center for Disability Resources (CDR) is a University Center for Excellence in Developmental Disabilities Education, Research and Service (UCEDD), housed at the Department of Pediatrics within the School of Medicine at the University of South Carolina. The Center's mission is to create an inclusive community where all people, including those with disabilities and their families, have choices in determining the course of their lives and fulfilling their dreams.

The CDR worked with two partners on The Work Connection project. One partner was the Richland School District Two in Columbia, South Carolina, one of only three districts in the state to earn an Excellent Absolute and Improvement rating on its state Report Card. The other partner was the Midlands Workforce Investment Board, a One-Stop Employment Services Center also in Columbia, SC.

The purpose of the Work Connection program was to work toward improved employment outcomes for transition-aged students with disabilities through increased access to information technology. By working with a local school district and a One-Stop Center, the Work Connection program sought to enhance the knowledge, communication and resources relevant to accessing information technology for students with disabilities, their families and service providers, resulting in improved employment outcomes through the One-Stop Center.

The school district identified 15 high school students with disabilities who would soon be transitioning into the workplace. The selected students represented a cross-section of students with disabilities. These students were then enrolled in a curriculum that included self-advocacy, employment skills, and technology use. The students also had meetings with an employment benefits specialist.

In order to accommodate these students with their transition planning, the Midlands One-Stop Center provided caseworkers, referrals to vocational rehabilitation services and other partner organizations, and training on work incentives. To help the students access the information technology resources available through the One-Stop, Center personnel provided training on the use of assistive technology, tutorial software for typing, and instruction in Internet research. The One-Stop Center also partnered with the South Carolina Assistive Technology Project to provide training for participating students. Additionally, the

South Carolina Assistive Technology Project worked with the Midlands One-Stop Center to identify potential information technology barriers at the Center.

### **Outcomes**

Although this project was implemented on a small scale, it had a profound and positive impact on the 15 students who participated. Many of the students were able to find positions with employers such as Blue Cross/Blue Shield, Pizza Hut, Cracker Barrel, and a local childcare facility. Seven of the students are employed as of this writing and hold full-time positions in the areas of general maintenance, bus boy, clerical support and child care helpers.

Two additional positive results were the evaluation of the websites of the One-Stop Center and the Richland Two School District. The Midlands One-Stop Center's website, hosted by the South Carolina Employment Security Commission (the Southeast DBTAC's ADA affiliate for SC) ([www.sces.org/Individual/locations/columbia.htm](http://www.sces.org/Individual/locations/columbia.htm)), was designed with accessibility features such as alternative text for images. The school district's website (<http://my.richland2.org/portal/server.pt>) is undergoing a complete redesign that will also include accessibility features.

CDR staff presented information about the Work Connection program at the South Carolina Coalition for Exceptional Children Convention and at the Virginia Transition Forum. Additionally, brochures about the project were distributed widely in South Carolina in order to facilitate possible replication at other sites.

## West Tennessee Special Technology Access Resource (STAR) Center: Technology Coaches

### **About the Project**

The STAR Center is a resource and training center with the goal of ensuring that individuals with disabilities achieve independence, employment, and education. In its work providing assistive technology for K-12 students in the Jackson, Tennessee public school system, STAR Center staff realized that one common barrier to information technology access was that classroom teachers did not have the adequate training in basic computer operation they needed in order to assist students with assistive technology needs. As a result, students were effectively denied access to information technology — not because the information technology was not accessible, but because their teachers did not know enough about how information technology worked to integrate the assistive technology appropriately.

In response, the STAR Center used funding from the Southeast DBTAC to develop hands-on trainings for selected K-12 teachers in the Jackson/Madison County School System, students in the Department of Education at Lambuth University, and student teachers working in Jackson/Madison County Schools. The Jackson/ Madison County School District serves over 14,000 students at the elementary, middle, and high school levels. Lambuth University is a four-year private college in Jackson, Tennessee. The Star Center trainings were enhanced through the provision of assistive technology through the STAR Center's lending library.

The first step in determining the content of the training was to survey the needs of the participants. Survey results confirmed that technology knowledge on the part of the teachers was quite low. Although the trainings were originally intended to introduce teachers and education students to the barriers that students with disabilities experience in accessing information technology, it turned out that many of the teachers did not have sufficient knowledge of computer basics to understand the issues. As a result, the initial training focused on providing teachers with basic knowledge of how to use a computer.

The university students were more aware of assistive technology and its use in the classroom, as well as ways to include technology in the curriculum. Although they did not need training in basic computer skills, they benefited from the STAR Center's training on assistive technology that included hands-on training on specific assistive technology devices.

Because of the need to provide additional support to classroom teachers on technology issues, the project originally proposed was modified to provide a different approach for providing assistance for students with disabilities in the classroom. This new approach identified "technology coaches" at campuses in the Jackson/Madison County School system. These "Technology Coaches were given additional training in troubleshooting issues with computers and assistive technology devices used in classrooms. Teachers without a basic knowledge of



computer skills would then be able to rely on a Technology Coach to provide access to the Internet or to change the settings on a software program, such as a screen reader.

## **Outcomes**

A key finding from the project was confirmation of the low level of technology by current teachers in K-12 classrooms. The evaluation forms from the training indicated that many of the participants needed, and continue to need, training and technical assistance on such basic computer skills as knowing how to “right click” using the mouse, creating folders, copying and pasting text, saving documents, and even turning a computer on and off.

In reviewing the practice from a policy perspective, the STAR Center’s experience seems to indicate that many teachers have their own educational and training barriers to information technology that prevent them from effectively addressing the barriers that students might face in a classroom. While many teachers, especially younger teachers, have a great deal of knowledge about information technology, that knowledge is not always widespread. Teachers who cannot operate information technology effectively lessen the chances that all students, including students with disabilities, have access to that technology for learning. Providing even the most basic assistance for teachers can help them to be more effective, both as technology teachers and technology users. Training teachers and “technology coaches” on basic assistive technology setup can also be effective in ensuring that students can use assistive technologies in the classroom.

## Cross-Project Findings

The Southeast DBTAC has noted three specific needs that should be addressed for K-12 schools in the Southeast Region to provide information technology accessibility for students with disabilities. These needs, along with recommendations from the Southeast DBTAC, are as follows:

### Need For Increased Technology Knowledge in Classrooms

Two of the projects experienced significant issues concerning the knowledge of classroom teachers about basic technology issues. The teachers involved in the STAR Center project faced basic difficulties in operating and using information technology. As a result of the project, they were better equipped to handle specific issues regarding access for students. The teacher/mentors participating in the Georgia Accessibility Rally required intensive, hands-on training on basic web design before they could assist the student teams. Ensuring that teachers have the basic technology knowledge they need is critical if teachers are going to play a role in technology accessibility for students with disabilities.

**Recommendation:** School districts and public education agencies should provide accessible, online training opportunities for teachers with and without disabilities on basic technology use, basic assistive technology concepts, and the barriers commonly faced by students with disabilities to information technology.

### Need For High-Level Buy-In

Two of the projects illustrated the importance of having advocacy for information technology access at high levels of responsibility. The South Carolina education technology plan provides an example of leadership in accessible IT. The involvement of the Southern Regional Education Board illustrates the important role that leaders can play in dissemination of information. Having a commitment from high-level education officials is an important step in ensuring the effectiveness of a project.

**Recommendation:** Specialized training materials and training opportunities should be focused at high-level education administrators, including state agency officials, superintendents, principals, and technology coordinators.

### Need For Effective Standards for Accessibility

Two of the projects showed the importance of having clear, achievable standards for accessibility. The Kentucky Assistive Technology Services project is working diligently to institute effective statewide standards. The South Carolina Work Connection highlighted the need for standards that apply to many educational environments, including One-Stop Centers. Effective standards provide guidance on the specific steps educators can take to create access.

**Recommendation:** Develop new, innovative standards for a variety of educational environments.

## Disclaimer

This Report was developed by the Southeast Disability and Business Technical Assistance Center (DBTAC) with funding provided by the National Institute on Disability and Rehabilitation Research (NIDRR) of the U.S. Department of Education under Grant #H133D010207. The Southeast DBTAC is authorized by NIDRR to provide information, materials, and technical assistance to individuals and entities that are covered by the Americans with Disabilities Act (ADA). The information, materials, and/or technical assistance are intended solely as informal guidance, and are neither a determination of your legal rights or responsibilities under the Act, nor binding on any agency with enforcement responsibility under the ADA. Georgia Tech does not warrant the accuracy of any information contained herein. Any links to non-Georgia Tech information are provided as a courtesy. They are not intended to nor do they constitute an endorsement by the Georgia Institute of Technology of the linked materials.

## Contact

For more information about this Report or for information about the Americans with Disabilities Act or accessible IT, please contact the Southeast DBTAC.

### **Southeast Disability and Business Technical Assistance Center (DBTAC)**

Center for Assistive Technology and Environmental Access (CATEA)

Georgia Institute of Technology

490 Tenth Street, Atlanta, GA 30318

1- 800-949-4232 (V/TTY)

[sedbtacproject@coa.gatech.edu](mailto:sedbtacproject@coa.gatech.edu)

[www.sedbtac.org](http://www.sedbtac.org)

404-385-0641 (Fax)

© 2005 All Rights Reserved, Georgia Tech Research Corporation