

## MARKET BRIEF

# Distance Learning

## Technology Advancements Help to Close Gaps for No Child Left Behind

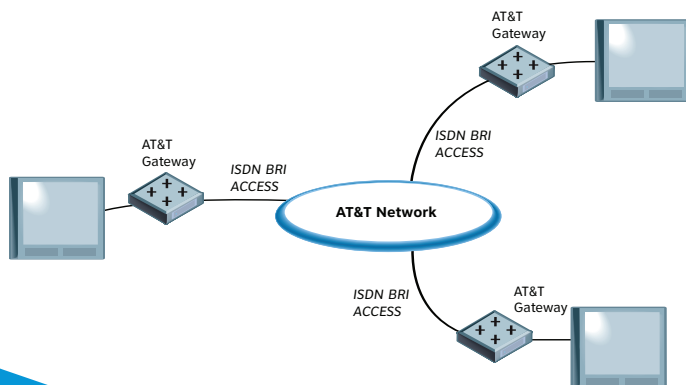
Elaine Shuck still remembers how three troubled youths, who normally attended classes behind locked doors in an alternative school in South Dakota, set up a makeshift kitchen in a conference room for a teleconference cooking lesson with a professional chef.

"The kids were having a ball," says Shuck, and later wrote papers describing how the chef "never made them feel like they were stupid little kids" but that they were important and were doing a good job. Even working with old, dull knives and battered frying pans, "They ended up making this wonderful lunch for the staff." One of the students, who had specially requested the culinary lesson, has since joined the armed forces and hopes to become a professional chef.

Another student wanted a videoconferencing tour of a zoo, which she had never seen; another got a virtual guitar lesson from a faculty member at the Cleveland Institute of Music. In all three cases, the students paid for the videoconferencing sessions themselves, with money they earned selling and chopping wood during the summer.

Such is the power of distance learning, says Shuck, who since her work in the Rapid City, South Dakota school went on to become education market coordinator for videoconferencing vendor Polycom. "Kids who normally don't read, once they're connected with an author, will want to read their books." Students who don't see the importance of math become more motivated after an on-line visit to the Baseball Hall of Fame and learn how player's statistics are calculated.

### Video Conferencing



Distance learning – done over the Internet or via teleconferencing – can give students isolated by geography or circumstance an inspirational mentor, an enthused teacher or simply a glimpse of a world and career possibilities they never knew existed.

But it can also help solve a more immediate problem for schools and school districts; meeting the requirements of the federal No Child Left Behind Act (NCLB) with its strict standards for everything from student test scores to attendance rates and teacher preparation. Distance learning can provide remediation and curriculum delivery alternatives to an underperforming or isolated school, delivering specialized instruction for students and providing the ongoing teacher training required by NCLB.

Distance learning solutions require equipment, technical support and training for teachers. It also requires funding, of course, although many agencies and private companies offer grants and even free or low-cost distance learning curriculum.

### Growing Trend

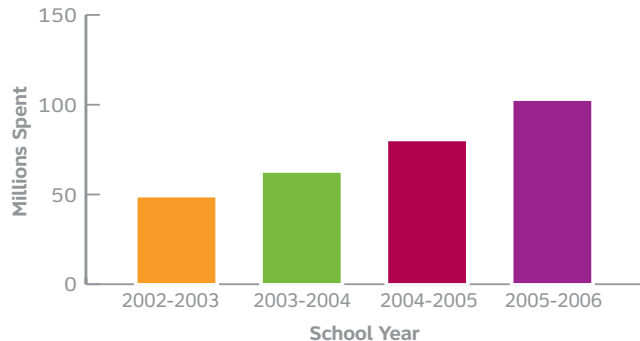
Schools spent about \$103 million on distance learning in the 2005-2006 school year, says Kira Robinson-Kates, a research associate at Eduventures, an educational consulting and market research firm. That figure had risen at a compound annual growth rate of 28 percent since 2002. She expects slightly slower growth through 2010, in part because distance learning is still a bit more expensive than a standard curriculum, with costs estimated between \$3,000-5,000 per year per student.

However, Robinson-Kates and others expect distance learning spending to eventually grow more quickly as schools increase the ratio of computers to students (now at about 1 computer to every four students) and add more broadband connections to the Internet.

Virtual schools – which can take the place of a physical school – got a boost in 2004 when the U.S. Department of Education approved virtual schools as an acceptable alternative for students wishing to transfer out of an underperforming school. The department reports at least 15 virtual schools operated by states, at least eight operated by agencies or consortia to serve students from multiple states, and at least seven operated by universities.



## Dollars Spent on Distance Learning



The Arkansas Virtual School, for example, opened in January 2003 to provide an alternative for students in underperforming schools who had no higher-performing school in their district. Head of school Karen Ghidotti says the 430 students in the school have scored between 7 to 20 percent higher than the average for other students statewide in both math and language arts. Most of the experts interviewed say virtual schools are best for students who are physically limited from attending an actual school, those who are homebound due to illness or disability, or those in very rural areas.

### Specialized Courses

Distance learning is also a way to provide courses required by NCLB, but which are too expensive or otherwise impractical for an existing school to provide. "If you only have four students who qualify for advanced placement calculus, then you have a problem if you can't afford a staff person to teach that course," says Marci Powell, AT&T's director of education advocacy. But several high schools could combine their qualified students, and their funds, to pay for an online course for those students.

It can also provide the unique learning environments required by students with different learning styles. An interactive, text-based Internet course might be best for a "textual" learner, says Raymond Hartfield, who is director of education for AT&T and a member of the Round Rock, Texas, school board. A student who thrives in a more conversational environment could benefit from a class taught over a videoconferencing link.

Online courses can also be customized to focus on the specific material students are struggling with and need to improve on in order to pass the standardized tests required by NCLB. Once a teacher or other professional customizes the online course, "the child is only taught that which they did not get correct," says Hartfield, "which makes a more efficient, and a much more effective, remediation experience for the student." Such "credit recovery" can also reduce the number of children being held back a grade, which is important since NCLB also judges schools on how many students successfully move from grade to grade.

Another advantage of distance learning is that courses with a high entertainment factor – such as a geometry course taught by a diver underwater in a swimming pool – can help by motivating students to stay in school, another statistic tracked by NCLB.

### Teaching Teachers

Finally, distance learning can be a cost-effective, and powerful, way to provide teachers with new and innovative techniques. Such professional development not only helps the teachers' students meet NCLB goals, but is in itself an NCLB requirement.

In the Champaign (Illinois) Unit #4 School District, between eight and twelve teachers per year take distance learning courses on how to better teach math to elementary school students, says Elementary Mathematics Coordinator Polly Hill. Most teachers liked the flexibility to review the course material whenever it was convenient for them, says Hill, as well as the opportunity to trade tips and insights with other teachers taking the course.

One particularly valuable element, she says, was that teachers could view and re-view an online video of a teacher at work and analyze what worked, and didn't work, for the student. "That made them think longer and harder" about the teaching skill they were studying, says Hill. For example, after watching a streaming video on-line of a teacher describing fractions to her students, the viewing teachers were asked how they might have worked with the students to improve their understanding of the subject matter. "Watching the video many times caused much deeper thinking" about what they had seen than simply sharing their impressions after watching the clip once in an actual classroom, says Hill.

### Implementation Tips

While curriculum or content delivery might be the most obvious need for distance learning, veterans recommend figuring out beforehand all the details such as how to administer the program, including how to provide technical support and to work around the varied schedules of teachers and students in different school districts operating on different schedules.

When looking for curriculum, check to see if it not only provides high-quality content that matches the appropriate state's test requirements, but whether it also has the capability to handle administrative work such as scheduling and reporting on students' participation, says Ghidotti. She also warned that starting a distance-learning program in the middle of the year makes it much harder to assess individual students' needs and customize a curriculum for them.

Funding a distance learning initiative can be a challenge. In a white paper entitled, "How Can Virtual Schools Be a Vibrant Part of Meeting the Choice Provisions of the No Child Left Behind Act?", the federal Department of Education reminded schools and districts to include the cost of special education services in budgeting for virtual schools, and to find sustainable funding mechanisms as early as possible for the programs.

### Dollars Spent on Distance Learning

Powell suggests working with local emergency service agencies to use their teleconferencing facilities (funded by homeland security funds) for education when they're not needed for emergency use. Robinson-Kates recommends looking for curriculum providers who will provide discounts for students in a school if teachers from that school will agree to teach an on-line course themselves.

Teachers also require training in the special demands of distance learning, and both teachers and students need access to up-to-date equipment and high-speed Internet links. On the plus side, says Shuck, "content providers are becoming very aware of the standards the teachers need to meet," says Shuck, tailoring their content to the test requirements and even providing packets for students containing all the materials they will need, for example, to do a hands-on science experiment during a videoconference.

### Growing Opportunity

Despite the challenges, most of the teachers and other experts interviewed predicted distance learning will become a more popular, and widely-used tool for both teaching students and for helping schools meet the NCLB requirements. After all, says Powell, distance learning "opens a whole new world" for students who might never have been outside of their neighborhood or town. As more tech-savvy teachers enter the workforce, and as schools add more computers and broadband connections, distance learning can also open new avenues for schools to improve their teaching and remediation and, thus, their compliance with NCLB standards.

### Online Resources for Distance Learning

**1. Annenberg Media provides a wide variety of free teacher professional development courses through Video on Demand.**

<http://www.learner.org/>

**2. The Federal Government Distance Learning Association (FGDLA) is a nonprofit association formed to promote the development and application of distance learning and to actively foster collaboration and understanding among those involved in educational and training within the federal government.**

<http://www.fgdla.org/>

**3. Polycom Web site with links to multiple resources for distance learning, including help finding grants to fund teleconferencing and blogs on the use of distance learning.**

<http://www.polycom.com/solutions/1,,pw-4733,00.html>

**4. U.S. Department of Education white paper, "e-Learning Frameworks for NCLB."**

<http://www.ed.gov/about/offices/list/os/technology/plan/2004/site/documents/S.Collins-e-LearningFramework.pdf#search=%22e-Learning%20Frameworks%20for%20NCLB.%E2%80%9D%22>

**5. List of distance learning resources maintained by the Instructional Technology Council.**

<http://www.itcnetwork.org/resources.htm>

**6. Web site of U.S. Distance Learning Association, with links to courses, newsletters and other resources.**

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

**For more information contact your AT&T Representative or visit us at [www.att.com/edu](http://www.att.com/edu).**