



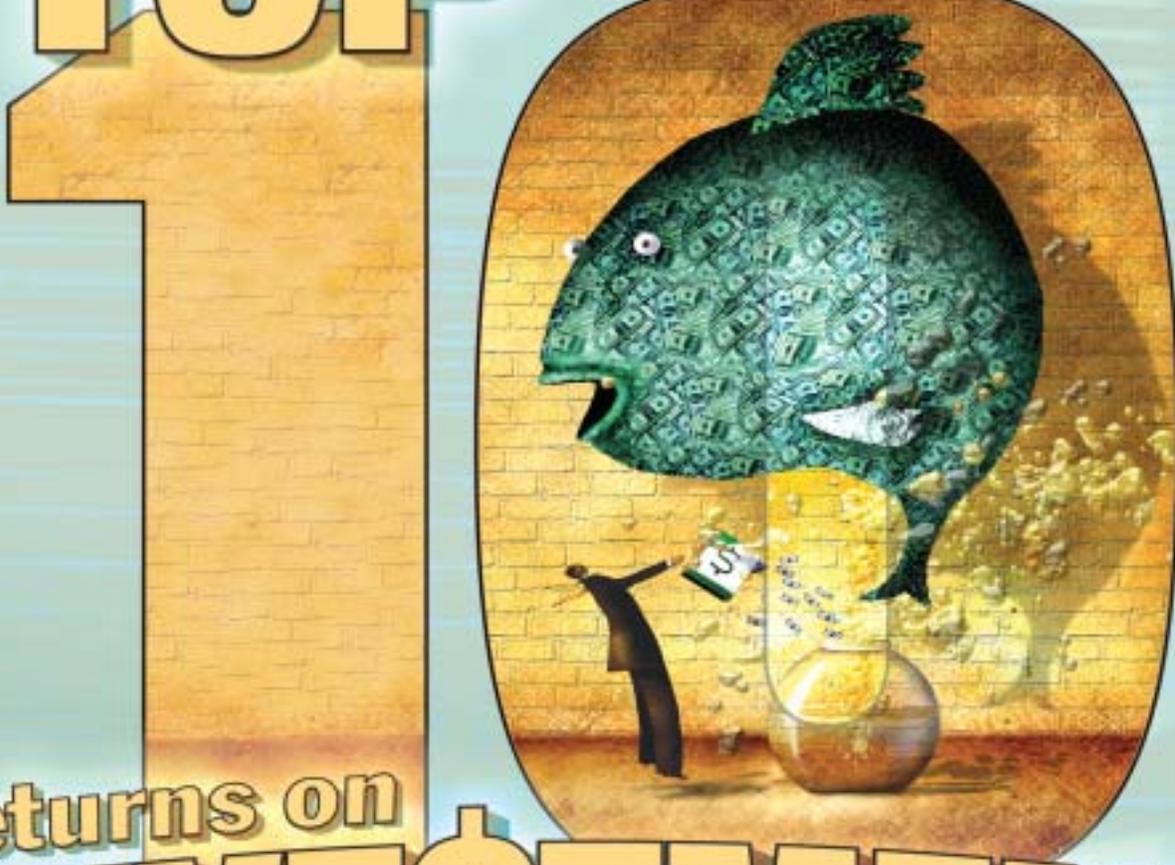
CMP

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TECHNOLOGY & LEARNING

TOP



Returns on

INVESTMENT

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1 **TIMELY and SUSTAINED TEACHER SUPPORT**

All the technology and curriculum resources in the world will have no impact on student achievement without the guidance and tech support educators need to make it useful on a daily basis.

2 **HIGH-SPEED INTERNET ACCESS**

The digital divide is no longer just about access, but about quality of experience on the Internet.

3 **RISK ASSESSMENT**

Can your district afford a lawsuit?

4 **MICROPHONES for TEACHERS**

Research shows that students in amplified classrooms are making significant gains in achievement.



5 **VIDEO-on-DEMAND**

Fingertip access to movies offers a powerful and immediate way to reach today's media-immersed generation.

6 **WIRELESS ENVIRONMENTS**

A new wireless networking standard is making it easier—and safer—than ever before for districts and schools to provide their users with anytime, anywhere access.

7 **DIGITAL PROJECTORS**

Paired with compelling content, digital projectors have the potential to transform classroom environments into 21st century learning hubs.

8 **DATA MANAGEMENT TOOLS**

In addition to helping districts deal with NCLB, data management systems can provide schools

with the ultimate return on investment: improved student achievement.

9 **PORTABLE STORAGE**

Gone are the days when applications used to support teaching and learning can fit on a 1.44MB floppy disk. Putting a flash memory drive in every student's hand solves schools' data storage and mobility issues in a pint-sized package.

10 **ONLINE SUBSCRIPTIONS**

Cost-effective, timely, space-efficient, and quick—online references and databases have become a staple of the digital classroom.

In addition to the 10 finalists, we thought you might be interested to know about the runners-up. Almost making it were tablet computers, Voice over IP, mobile labs, digital whiteboards, and online authoring tools.

4 **SPEAKING UP**

By **Susan McLester**

Sometimes it's easy to overlook the obvious. So it was an "aha" moment when I walked into classrooms at the Ocoee Middle School outside Orlando, Fla., and observed teachers outfitted with wireless microphones directing their highly engaged students. Ocoee principal Dr. Katherine Clark reported a remarkable 40 percent decrease in discipline problems at the end of the first year of microphone use.

As it turns out, there's lots more evidence that an amplified classroom is directly tied to student achievement. Both organizations such as the American Speech-Language-Hearing Association and the Acoustical Society of America, and companies such as Audio Enhancement, Califone, and Phonic Ear offer large bodies of consistent and convincing research. Among the facts and findings:

- More than 1 million U.S. children suffer from some kind of hearing loss.
- Kids' auditory networks aren't fully developed until age 15.
- Poor acoustics often caused by hard-surfaced floors and noise from heating

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and air conditioning systems, as well as additional ambient noise, reduce speech intelligibility to less than 75 percent in most classrooms.

This not only compounds challenges of hearing-impaired students, but also creates barriers for those with normal hearing who don't have the life experience that adults use to fill in the gaps. And

students who can't focus on the spoken word inevitably lose their desire to learn.

Studies comparing traditional classrooms to audio enhanced environments tell us that students in classes where teachers wear mikes are likely to achieve a minimum 10 percent overall gain in standardized test scores, especially in subjects relying heavily on verbal instruction. Also making significant gains are ELL and at-risk students, who exhibit increased time on task. As well, teacher absenteeism decreases, with microphone equipped educators reporting less strain, vocal fatigue, and overall stress.

AUDIO ENHANCEMENT

COST:

\$995—\$1,500 per classroom.

LINK UP:

The American Speech-Language-Hearing Association
www.asha.org/default.htm

Audio Enhancement
www.audioenhancement.com



IMPLEMENTATION TIPS:

The following are courtesy of Audio Enhancement CEO Jeff Anderson.

- Make sure you purchase infrared. There are some FM radio systems out there, but they are prone to interference from both other teachers and outside sources.
- Make sure that you purchase at least four speakers per classroom. The idea is to have speakers placed in multiple locations throughout the classroom. The best placement is in the ceiling.
- Pay for professional installation and training. It is worth the small cost.