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Can You Hear Me Now?

Come in loud and clear with a wireless classroom audio system.

S*u madre esta en la casa.* Sounds like a simple sentence in Spanish—your mother is in the house. But what if your students are sitting next to a loud air conditioner or a noisy hallway or your voice is shot after a week of teaching classes? Those words could be misheard—*padre* for *madre*, *pasa* for *casa*—and suddenly all meaning gets lost.

As school performance under NCLB becomes increasingly important, districts can't afford to have barriers to learning. That's where wireless sound-field amplification systems come into play.

Wireless sound-field amplification systems come in two types: radio frequency (RF) and infrared (IR). RF systems are based on FCC-approved FM and UHF bands (commonly used for radio and television, respectively), and IR systems use infrared light to send signals between a microphone and receiver. The systems consist of a handheld or headset mic, a receiver, and a set of speakers (external, in-ceiling, or in-wall models).

When it comes to sound reinforcement in the classroom, districts have a host of options to choose from. In this article, I'll look at wireless, permanently installed systems focused on amplifying speech, not music.

Sound Practice

According to a 1978 study, an educator's voice tends to be only 5 decibels (dB) louder than the room noise itself, yet an English-speaking student with normal hearing needs the teacher's vocal level to be 12 dB higher than the

room noise for 100 percent accuracy. And a government study (The Marrs Study) suggested that as much as a quarter of the student population suffers from "minimal" hearing loss, thus increasing the chance for missed information. Finally, most people's hearing does not fully develop until age 15.

With those factors in mind, what can you do to help students hear properly? Asking instructors to speak more forcefully is one option, but it's not very practical. A simple solution is to provide an easy-to-use sound reinforcement system that gives educators the ability to project their voices with a minimum amount of strain.

That reduction in vocal stress means fewer teacher absences (as a U.S. Department of Education study found); other studies suggest that all students—including those with attention-deficit disorder and behavioral problems—can benefit from these systems.

Of course, administrators must

balance the positive effects of sound reinforcement on educators and students with the ever-present issue of funding imperatives. Those worried about return on investment can turn to a 1995 study by the Florida Department of Education, which found that the per-student cost of wireless sound reinforcement systems comes to fractions of a penny per day.

Phonic Ear's Front Row pro 903TM lavalier mic is a hands-free solution for voice amplification.



Balance those findings (even adjusted for inflation a decade later) with U.S. Department of Education studies that link sound reinforcement systems in classrooms to improved test scores on reading and language and reduced referrals to special education programs (not to mention reductions in discipline problems), and you have many powerful reasons to spend those precious funds on sound reinforcement. Simply put, better test scores and less strain on your district's special needs programs can make sound-reinforcement systems a steal.

The Right Sound

When considering which type of wireless system to use, districts must juggle a host of concerns, ranging from cost (including where the funds will come from) to performance.

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