



Aiken County Public Schools Amplify Teachers in the Classroom

The United States Access Board, an independent federal agency whose primary mission is accessibility for people with disabilities, stated that acoustical performance is an important consideration in the design of classrooms. As many classrooms were built during a time when acoustics was not a significant concern, it is critical for administrators to consider the affects poor acoustics may have on student learning. Research shows that ambient noise and reverberation normally not noticed by adults can have a negative affect on learning environments for young children, as they require optimal conditions for listening and comprehension.

Additionally, students who have hearing loss or those with assistive implants (which amplify both wanted and unwanted sound) feel the affects of poor classroom acoustics greater than other children. As background, children who have temporary hearing loss comprise nearly 15 percent of the school-age population, according to the Centers for Disease Control (CDC).

“We wanted our Title 1 students to have the same opportunities to learn as everyone else and installing amplifications systems enabled all students to hear their teachers. The students really enjoy using the technology because they feel more pronounced and important.”

Students who have speech impairments or learning disabilities also are significantly affected by poor classroom acoustics, similar to those students whose first language is different than the teaching language. All of these students are at an additional risk of struggling academically because they cannot hear what the instructor and other students are saying clearly enough.

As the Title 1 Coordinator for J.D. Lever Elementary School, Christie Valenzuela and other staff members wanted to make sure that each student has the same opportunity to learn as everyone else. Located in rural Aiken County, South Carolina, the district decided that one way to meet students needs would be to install an amplification system in each classroom so that students seated near the back of the class could hear the teacher just as well as students near the front.

“Through our research, we discovered that many schools who integrated this technology saw increases in their state assessments,” Valenzuela said. “We reviewed many systems, but ultimately chose the Infrared Audio System from Califone as it brought the most return on our investment.”

Designed for simple installation in a variety of educational venues, the Classroom Infrared Audio System provides educators & presenters with significantly increased coverage and improved sound distribution.

Case Study: Aiken County Public Schools Aiken, South Carolina



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Numerous studies verify the educational benefits of sound field amplification systems, including increased on-task behavior and student attention to oral instruction, improved comprehension among ELL students, and reduced vocal strain and fatigue for teachers.

The Califone Classroom Infrared Audio System offers all the benefits of wireless sound field amplification without the interference between adjacent classrooms, providing greater coverage and reception as well as even sound distribution. In addition, two ceiling-mounted infrared receivers double the available coverage to accommodate large classrooms.

Unlike systems using ceiling speakers, which randomly bounce the sound off walls, the audio system uses two powerful “array” speakers to project the sound pattern directly at the audience. With evenly distributed sound provided by the presentation system, students in every area of the classroom can hear oral instruction and educational audio technology clearly.

The system also includes a lightweight belt-pack transmitter with lapel microphone for the teacher, a wireless handheld microphone for student use, and a lockable metal case that stores the volume, bass and treble controls as well as the line inputs and outputs to connect with computers & other audio sources.

J.D. Lever Elementary School purchased 32 units and mounted the units on one of the classroom’s walls near the middle of the seating arrangement for maximum range. Each teacher wears a lapel microphone and students use the handheld microphones when asking questions or giving presentations.

“The students really enjoy using the technology because they feel more pronounced and important. The teachers appreciate the amplification – not feeling strained at the end of the day,” Valenzuela said.

Helping to meet the needs of all of the school’s more than 620 students, the amplification system was most positively embraced by the parents of those students with hearing impairments. In addition, the school’s speech teacher believes the systems have helped tremendously as they do not add to the classroom’s noise level at all.