



Clear View Charter Elementary Helps Teachers Reach All Students

Issue

Studies about classroom acoustics illustrate that excessive noise and reverberation can interfere with speech intelligibility, resulting in reduced understanding and therefore reduced learning. In many classrooms in the United States, the speech intelligibility rating is 75 percent or less, meaning that listeners with normal hearing can understand only 75 percent of the words read or spoken.

As part of the largest elementary school district in California, Clear View Charter Elementary School in Chula Vista serves more than 500 K-6 students. Its mission to develop the knowledge, critical thinking skills and attitudes of their students is inherent in the practices and passion the school's educators have for incorporating technology in each classroom, especially technology that promotes proper classroom acoustics.

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...With this system, teachers tend to speak at a lower volume into the microphone, allowing a wider range of pitches to come through, and ultimately this helps to reduce strain on their voices"***

Since the school opened in 1991, each classroom has been equipped with classroom amplification systems. During the last 17 years, the models have aged and required replacement. Deciding it was time to purchase new units, school staff members looked into purchasing new UHS-based systems, but found these only provided a few channels on site, which meant staff members would need to be cautious & strategic about the frequencies to avoid cross-talk between classrooms.

After researching several options, the school's Library Media Teacher, Jim Dieckmann, decided to move forward with purchasing a Califone Classroom Infrared Audio System for each classroom. "We use classroom amplification systems because it allows the teacher to effectively reach all students in the classroom, including hearing impaired students," said Dieckmann. "We believe the Califone systems were available for the right price, and were durable for long-term use in a school environment."

Case Study: Clear View Charter Elementary School Chula Vista, California



PA-IRSYS

Implementation

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

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 area to accommodate large classrooms.

Unlike systems using standard 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. The evenly distributed sound provided by the presentation system means 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 a lapel microphone for the teacher, a wireless handheld microphone for student use, and a lockable metal case that contains the volume, bass and treble controls as well as the line inputs and outputs.

Results

Dieckmann reviewed with each teacher how to use the system once they were installed in the classroom, including the differences between the units they were using previously and the new units from Califone, how to wear the voice pack and charge the battery for future use.

"We believe that using the Califone audio system in the classroom helps to naturalize the teacher's speaking voice, allowing for the appropriate tone and pitch to reach each student. Without a device like this, teachers tend to raise the volume of their voice and speak in tones that are not conducive to listening. With this system, teachers tend to speak at a lower volume into the microphone, allowing a wider range of pitches to come through, and ultimately this helps to reduce strain on their voices," Dieckmann explained.