



Dysart Unified School District Projects Loudly with Array Technology

As digital natives comprise the majority of today's U.S. students, it is important that the curriculum incorporates technology as a tool for learning. According to the International Society for Technology in Education (ISTE), multimedia tools can provide a rich environment for conducting project-based learning, which can help students to: increase knowledge and skills in the particular discipline being addressed; master research and higher order thinking skills; increase knowledge and skills in making use of information technology; and become further engaged in the subject.

In addition to these benefits, most states require that students meet a technology-focused standard prior to graduation. Generally, students should know how to use technology as a tool of research, organization, evaluation and communication, as well as understand the ethical and legal issues surrounding the access and use of information technology.

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As the fastest growing school system in Arizona, Dysart Unified School District outside of Phoenix is dedicated to preparing their students to thrive in the new century, which means each of their 21,500 students needs to master technology-based skills. Since the district is aggressively hiring new teachers (more than 300 each year), DUSD created a dedicated training department to ensure each staff member would know how to use the technology available to them to effectively teach their students. The district also was looking to provide their teachers more ways to use technology in their classrooms.

“We had television sets in all of our classrooms, but the technology was very limiting,” said Ezra Williams, network specialist for the district. “We wanted to provide technology that would offer more options for instructional purposes.”

Meeting the challenges of an increasing student population and addressing the instructional needs of teachers, the district decided to implement new projectors and speakers into their schools. “With a projector and whiteboard combination, teachers have many options, such as hooking-up to their laptops to show pre-made slides or solving a problem directly on the whiteboard,” said Williams.

Case Study: Dysart Unified School District Surprise & El Mirage, Arizona



PI30 Array Speaker

Working with Troxell Communications, DUSD purchased speakers from Califone International, Inc., to accompany 450 projection systems. The PI30 ‘array’ speakers from Califone are now being used in one high school (about 100 classrooms) and the rest are dispersed among K-8 classrooms throughout the district.

“The speakers from Califone give us the ability to have a high-quality sound system connected with the projector system,” Williams said. The ‘array’ speakers allow teachers to amplify music, videos and other online interactive programs played directly from their laptop connected to the projector system, all without adding new ambient noise to the classroom – giving the students a greater opportunity to listen and learn.

Classrooms can often be noisy even when only the teacher is speaking. Noises such as humming air conditioners, tapping pencils and shuffling backpacks can have an effect on how students hear, and therefore process, the information vital to their academic achievement. Part of the ‘array’ speaker series, the PI30 speakers target the audience directly instead of losing valuable information in the classroom or auditorium void. Designed to increase the signal-to-noise ratio, all three of the ‘array’ models narrow the sound distribution directly at the students while preventing sound waves from reverberating off walls. It is vital for students to hear both their educators and their audio-visual resources clearly, without significant reverberation or diffusion.

With 16 selectable UHF channels for wireless microphone or LCD projector compatibility, the PI30 speaker features dual line-in and RCA ports, fixed and adjustable line-outs, volume control and microphone functions. The speaker is built with a rugged steel grill for protection and includes wall mounting hardware.

In addition, the PI30 speakers now include two new outputs, which both allow additional speakers to be linked to the master speaker. One output gives the educator or presenter the opportunity to fix the volume on each additional speaker at a preferred level. This type of connection is ideal for presentations where some areas or attendees, such as students with difficulty hearing or other special needs, may require a louder volume. The second output enables the master unit to set the volume of all additional speakers at the same level.

DUSD chose to provide 20 classrooms with wireless lapel microphones during installation, and now more than 100 teachers have requested a lapel for their classroom. “Teachers who have hearing impaired students in their classroom find the amplification to be extremely helpful,” Williams said.

The district also chose to keep some of the speakers on mobile carts with microphones. This allows teachers to request the portable sound system for activities that may not be in a classroom or for an administrative meeting. “The teachers are so ecstatic about receiving the new audio technology – no more checking out boomboxes or checking into the media labs.”