CASE STUDY: ACADEMIES OF DISCOVERY

Samsung Displays Provide Collaborative Learning Platform for Middle School
Embracing 21st Century Learning with BYOD

OVERVIEW

Customer Need
Part of the progressive Hall County Schools System, the Academies of Discovery in Gainesville, Ga., were established with a vision of fostering 21st century skills through technology. Having adopted a Bring Your Own Device (BYOD) policy for their young students, the Academies recognized the need for display technology that would encourage collaboration and support a teaching approach built around project-based learning.

Samsung Solution
Hall County Schools, together with integrator dB Audio & Video, selected Samsung to provide LED-lit commercial display and digital whiteboard solutions that would meet the Academies’ educational objectives as well as their budget considerations. Each classroom was outfitted with Samsung’s 65-inch ME Series display with a touch overlay to enable interactive learning, while the building’s hallways featured LED-lit digital signage to showcase student work. For their shared Learning Commons, the Academies created numerous collaborative workstations built around large Samsung commercial displays, with a video wall spanning nearly 14 feet corner-to-corner providing the focal point for larger campus events.

Results
The Samsung displays and interactive whiteboards have been embraced both by teachers and students, encouraging group creativity and collaboration and nurturing real-life skills. The project, which will eventually put Samsung interactive whiteboards in all of the Academies’ classrooms, has earned recognition as a best practice for achieving collaborative education through cutting-edge technology. Hall County Schools now frequently welcome visitors from other school districts looking to learn from their approach.
Housed in a renovated high school building erected in the 1950s, the Academies of Discovery in Gainesville, Ga., were established with a vision of transforming the traditional learning environment. Learning at the Academies is built around the students’ individual strengths and interests, emphasizing problem-based study and applying classroom learning to real-life activities and goals.

Dr. Aaron Turpin, executive director of technology at Hall County Schools, describes the philosophy as “asynchronous education,” an approach he says is in sharp contrast with his own school days “when all students learned the same thing at the same time.”

The Academies of Discovery are part of the Hall County School System, which supports 27,000 K-12 students across 33 schools. They comprise two learning institutions: the Da Vinci Academy of the South Hall Middle School, a “program of choice” focused on advanced arts, sciences and technology education; and the World Language Academy, a pre-K to grade 7 dual-language immersion school. Both share access to the Academies’ Learning Commons, a two-level lounge area where students are able to work independently on project-based study.

“Our goal is to teach students meaningful things, to gain proficiency with technology, to create and collaborate and to communicate with their environment not just now but later on as well,” said Gary Martin, who teaches design and video production to mixed classes of students from both the Da Vinci Academy and the World Language Academy.
THE CUSTOMER NEED
Technology to enable interactive, collaborative learning

Five years in the planning, the design of this asynchronous educational environment emphasized cutting-edge technology — wireless mobile technology, cloud computing and a range of other tools — that can foster interaction, collaboration and communication. “These are the critical 21st century skills that we want students to obtain,” said Turpin.

The Academies chose to adopt an open Bring Your Own Device (BYOD) policy, with students bringing in 75 percent of the mobile computing devices in use at the school. These included laptops, tablets and smart phones with varying screen sizes running a full spectrum of operating systems.

This diversity of devices posed a significant interoperability challenge: How could students be enabled and encouraged to collaborate with each other, rather than working in silos on their own small screens? To address this, Hall County Schools sought to create collaboration spaces within the Academies where students could gather in small or large groups and work together around a single, large screen.

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– Neil Philpott, systems advisor, dB Audio & Video

Partnering with dB Audio & Video, a leading full-service integrator specializing in audio, video, control automation, lighting and acoustics, the district developed a plan to integrate an array of large-format display technology throughout the Academies’ 96 classrooms and the Learning Commons.

“This was far more than a basic classroom setting requiring TV screens on the wall,” explained Neil Philpott, systems advisor for dB Audio & Video. “This was a school with some of the most advanced technology in the state and it needed the right display technology to realize its vision.”
THE SAMSUNG SOLUTION
LED-lit commercial displays and digital whiteboards

After a thorough RFP process, Hall County Schools chose to standardize on Samsung LED-lit commercial displays to outfit the new Academies of Discovery facility. According to Turpin, the selection was based on the exceptional picture and audio quality, the range of solutions available, as well as the reduced energy consumption and consequent cost savings achieved through Samsung's LED-lit displays. Hall County Schools were also familiar with Samsung displays from a previous project equipping Lanier Charter Career Academy. “We saw the value proposition with Samsung’s technology and the effort they put into R&D,” said Turpin.

In an ongoing project expected to span two years, dB Audio & Video has worked closely with Hall County Schools and Samsung to select the display technologies that will best support the Academies of Discovery’s goal to foster collaboration and stimulate interactive learning. Key integrations include:

• **Classrooms**: More than 40 classrooms throughout the facility have already been equipped with the 65-inch ME Series display, with its ultra-thin profile enabled by Samsung’s edge-lit LED technology. A CY-TM65 Optical Touch Overlay turns the screen into an interactive whiteboard enabling teachers to create more engaging, student-centric lessons. The solution enables two students to draw on the board simultaneously and comes with Samsung’s Magic IWB software.

• **Learning Commons**: To enable group work the Academies created collaboration stations equipped with 55-inch MD Series displays that allow up to 16 students to connect their individual mobile computing devices to share their work on projects. Taking center stage in the Learning Commons is a video wall comprising nine Samsung UD Series LED-lit LCD displays, featuring an ultra-narrow bezel that provides a virtually seamless viewing expanse. The video wall is used for a variety of visual communications and also serves as a backdrop for student presentations and performances.

• **Hallways**: Samsung LED-lit LCD displays are installed throughout the school’s hallways, used primarily to provide event information and to showcase student projects. Featuring an integrated media player with Samsung’s MagicInfo Lite software, staff can easily schedule video clips or run slide shows by plugging in a USB stick.

“LED large-format displays were the perfect solution for our needs as they allow our students to work together in a much more direct and engaging way, providing exceptional visual and audio quality, in addition to helping us reduce our energy consumption and lower our total cost of ownership,” explained Turpin. “This has been a win both for our educational objectives and our bottom line.”
THE RESULTS
Display technology drives student engagement and collaboration

The Samsung display technology in the Academies of Discovery’s classrooms and Learning Commons has helped to foster the asynchronous and collaborative learning environment they have been striving for, according to Turpin. "It has been amazing to watch this facility come to life," he said. "The opportunity to collaborate and present on the displays has improved the quality of the students’ work and their experience exponentially."

For teacher Gary Martin the Samsung displays have made a huge difference in his classes. “Our curriculum is very dynamic," he said. “The kids expect to use technology — it’s their language. The Samsung displays have prompted teachers to think of creative ways to use them in their classrooms and for group projects."

Martin’s entire curriculum for his graphic design, Web design and video production classes for fifth to eighth graders revolves around group projects for the local community. Students might be tasked, for example, with designing a poster, advertisements, video or website for a local business.

The displays have encouraged the collaboration that is essential to the creativity and success of his students’ projects. "All of my students have their own laptops. By being able to plug into the big Samsung display, they can share their screens with the group, which has been extremely important," he said. “We review the work as a group and can really visualize what the final project will look like in full clarity and brightness. The collaboration builds their confidence in communicating and gives them a voice in the design process, as well as providing a technology education."

In a clear sign of their success, the Academies of Discovery now welcome many visitors from other schools and school districts from out of state. They come to see how Hall County Schools have combined technology and interactive learning in the design of the Academies, and also learn about the results of asynchronous education supported by Samsung display technologies. "They are going through the same learning curve that we did," Turpin said.

“Interactive display technology has enormous potential in the learning environment, providing instructors and students with a digital canvas to create, interact and collaborate in a whole new way," said Tod Pike, senior vice president of Samsung's Enterprise Business Division. "With its forward-looking vision for 21st century learning, Hall County Schools are leveraging the full value of display technology in the K-12 setting and setting a benchmark for other districts to draw from."

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