

Connected learning: Wireless access helps transform all areas of a school into flexible learning spaces

Connections for Classrooms Case Studies: [Hall County School District](#)



THE GOVERNOR'S OFFICE OF
STUDENT ACHIEVEMENT

Background

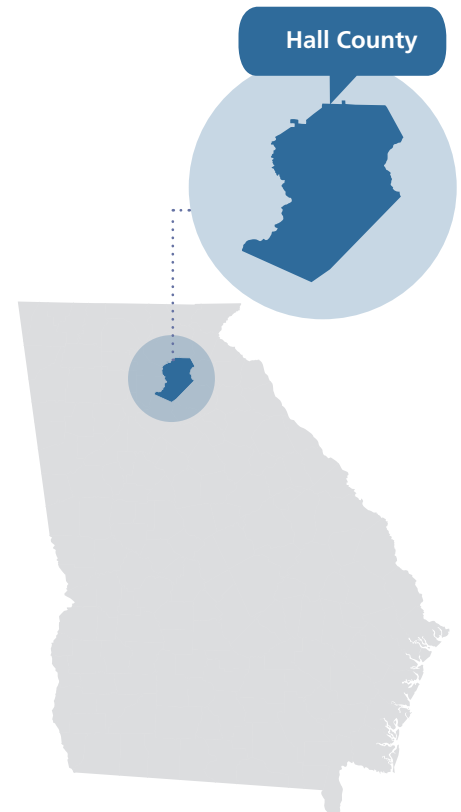
Hall County School District (HCSD) serves approximately 29,000 students across 37 schools in north Georgia. HCSD believes that “students are most successful when they are involved in programs that engage and motivate them, that capitalize on their unique talents and interests.”¹

To realize its vision for student engagement, the district offers students a range of education pathways through its school choice program. Students in HCSD can attend their zoned school or select among schools and programs that specialize in areas such as dual language immersion, Science, Technology, Engineering, and Math (STEM) education, fine arts, career preparation in a variety of fields, and International Baccalaureate. Within each school, students make additional choices among programs customized to their interests, including opportunities to learn online through courses developed by Hall County’s online learning group.

Nearly 60 percent of students in HCSD qualify for free or reduced price lunch. District demographics shifted significantly during the past 15 years toward greater racial and linguistic diversity. Once a predominantly white district, the population of Hispanic students has grown to 40 percent, and English Language Learners comprise 20 percent of the population. The need to differentiate instruction to address the academic needs of the district’s diverse learners has never been more acute. In response to the shifting demographics, the district committed to moving instruction to a blended learning format to offer students additional choice regarding time, place, pace, and path of learning.

During the past several years, HCSD made significant investments in its technology infrastructure, but the existing wireless network also needed upgrades. It was unreliable and not able to handle the increased usage of a blended learning format. With grant funds from Connections for Classrooms (CFC), the district implemented a robust wireless infrastructure in all schools. Now, students throughout the district can access digital content from wireless devices without worrying about the quality of the connection.

The increased wireless connectivity precipitated two changes in student learning in Hall County: it transformed all areas of schools into potential learning spaces, and it enabled increased enrollment in HCSD’s online courses.



CFC Award Amount:

\$795,481.08

Federal E-rate Amount:

\$921,166.40

Total

\$1,716,647.48

“Before, students had to go to where [classroom] technology was to study.” With increased wireless capacity and HCSD’s bring-your-own-device (BYOD) strategy, “technology becomes part of the natural learning environment, not something separate from it.”

- Aaron Turpin,
Assistant Superintendent of Technology

Transformed Learning Spaces

With the increased wireless network capacity funded through the CFC grant, learning has expanded past classroom walls as students can now choose the location where they learn. Schools across the district are transforming non-classroom areas into active learning spaces that leverage the increased connectivity. In several school buildings, such as North Hall Middle School and Academies of Discovery, the district funded renovations to create new, flexible learning commons. “Before, students had to go to where [classroom] technology was to study,” said Turpin. With increased wireless capacity and HCSD’s bring-your-own-device (BYOD) strategy, he said “technology becomes part of the natural learning environment, not something separate from it.” Turpin noted that technology now travels with students in their classrooms, hallways, common areas, and media centers— anywhere learning can take place, “which is everywhere!”

New Learning Commons

At **North Hall Middle School**, the renovation of the 3,100 square foot media center created an open, airy learning commons that can be used in a number of ways simultaneously. Stationary bookshelves and fixed computer stations were replaced by more mobile furniture. As Principal Tamara Etterling was quick to point out, all the furniture in the learning commons—from the low bookcases, chairs, and tables, to the library catalog station—are now on wheels. HCSD also acquired new technology for the space, including two 65-inch interactive display units on adjustable easels and a wall-sized display (10 ft x 12 ft) where students and teachers can share their screens to project video or other content. The new learning space comfortably accommodates large and small groups to gather and collaborate— up to 115 people, including 40 in the projection screen area. This flexibility enables students to arrange furniture into multiple configurations, clustered around the interactive displays or in front of the large wall display as needed.

The **Academies of Discovery** updated a once underutilized atrium to become a learning commons using a similar model. The school furnished the bright, two-story room with several collaborative workstations featuring large projection screens and a video wall for larger group presentations. According to Turpin, the learning commons is a hub for project-based collaboration for whole classes, small groups, and individual students. Connectivity allows students to project to screens within the learning commons and collaborate online.

Active Learning Spaces

Other learning spaces in the Academies of Discovery also benefitted from the expanded wireless coverage: **DaVinci Academy’s** museum, which displays physical and digital student-made artifacts, and Gary Martin’s video production studio, where students regularly share their memory-heavy videos and photography. Trey, a seventh grade student in Martin’s class, described using the wireless capacity in the room for “almost anything,” for “research, sharing documents, reviewing instructional videos from Mr. Martin... and posting assignments.”

Lanier Charter Career Academy (LCCA), a high school offering career preparation in hospitality, culinary arts, advertising and marketing, leverages the increased wireless capacity to support its student learning in non-traditional classroom spaces. These include student-run businesses on “Main Street,” which are used by the public and provide real world experience for LCCA students. Executive Director David Moody noted that every business on Main Street relies on the new wireless network for all business functions. Without that strong wireless connection, necessary payment and other business systems would collapse.

In addition, LCCA faculty make the most of their hands-on time with students in their learning space by using a flipped instructional model. Teachers often record the instructional portions of their lessons so that students can watch them in advance. This format enables students to spend more time with teachers executing projects, rather than sitting and listening.



Collaborative Work in the Learning Commons

In the North Hall Middle School learning commons, a group of seventh grade students position the interactive display as a table in order to examine the text of a poem. Students look for different figures of speech and collaborate to annotate and highlight corresponding text. At the conclusion of the lesson, they save their work and electronically submit it to their teacher for review.

Expanded Online Learning

Hall County's improved wireless capacity also expanded opportunities for online learning. Prior to the upgrades, students who wanted—or needed—to take courses beyond those accessible to them at school were constrained by geography and the wireless capacity of their schools. When the district first offered online instruction in 2012, it was limited to Spanish I, which had an enrollment of 30 students. The improved connectivity now enables successful videoconferencing and the growing number of online courses. Today, the district offers nine e-learning courses, and student enrollment has grown to 500. Students take e-learning courses in Spanish, Chinese, personal fitness, health, and AP Physics, with HCSD expanding these offerings each year. Online courses are part of the high school curriculum across the district. Students take online courses as part of their regular course schedule or during free periods in common areas, media centers, available classrooms, or even at home. At the middle school level, students are eligible to enroll in online courses to complete high school requirements in advance. Ultimately, the new network has allowed HCSD to expand the curriculum, enhance student choice, and create more flexible learning spaces.

The majority of online course content is developed in-house by HCSD teachers to ensure alignment with the Georgia and HCSD' standards. To manage the many layers of online instruction across the district, from course content to real-time video conferences with students, Hall County created the Center for Online Learning at the Academies of Discovery, which is staffed by several full-time instructors.

Hall County teachers and district staff also engage in online learning. Technology staff noted that, "in HCSD, it is no longer acceptable to offer professional development in a non-blended format." Bus drivers and teachers alike keep up-to-date with requirements and professional learning through online or blended trainings.

Impact

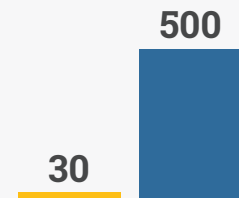
With the CFC grant funding and its new robust wireless network, HCSD transformed learning spaces and expanded education options for its increasingly diverse learners. Students and staff report that these changes have affected teaching and learning in several important ways.

Student engagement increased: Teachers and administrators noted a significant increase in student engagement related to the increased choice and the personalized delivery of education content via mobile devices. Expanding learning opportunities beyond traditional classroom walls offered students more real-world connections to their learning.

High-quality and relevant course content became more accessible to all students: The expanded learning opportunities (increased access to online courses, additional resources for research, and hands-on, collaborative learning projects, to name a few) gave students in this diverse school system the chance to customize their education to their needs and personal interests in a wide range of areas.

Confidence in the wireless network led to greater use: As one member of the HCSD technology staff noted, "the optimal condition for the wireless network is to be something that teachers and students never wonder about." Increased network reliability led to a surge in daily usage by students and teachers and an expansion of blended content. Teachers and students continue to rely more heavily on online resources to enhance the curriculum; and students are increasingly responsible for driving their own instruction.

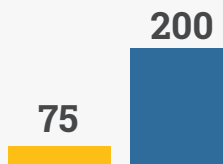
Growth of Online Learning in HCSD



Enrollment



Courses Offered Online



Waitlist

2012-2013

2016-2017