Case study

Greeneville City Schools

Digital transformation innovator selects HP Stream

Industry
K-12 Education

Objective
Implement digital transformation model of 21st century learning practices fostering student educational and career success

Approach
Deploy HP Stream Notebook PCs in 1:1 program for each student in grades 2-12 in a sustainability model addressing the full range of funding, deployment, curriculum development, and teacher training needs

IT matters
- Deploy approximately 2,500 devices in grades 2-12
- Provide full Microsoft Office 2016 functionality and Microsoft Office 365 connectivity
- Deliver Canvas cloud-based learning management system and digital learning tools

Business matters
- Transform classroom experience through blended-learning interactivity
- Empower students for academic/career success as lifelong learners
- Empower teachers to leverage new instructional technologies
- Ensure 1:1 program success through comprehensive sustainability model

"Effective use of technology such as the HP Stream is an ongoing, rich, and limitless learning adventure for both students and educators in our district."

– Pat Donaldson, Coordinator for Teaching and Learning, Greeneville City Schools

Greeneville City School (GCS), consistently named one of Tennessee's top-performing school districts, is renowned as a digital transformation model of 21st century learning practices. Close collaboration among their IT, Instructional, and Administrative teams has integrated technology seamlessly into the classroom and empowered teachers to make effective use of it. The district uses Microsoft® Office 365 and the cloud-based Canvas learning management system to enable robust, content-rich instruction. Pulling it all together, every student in grades 2 through 12 throughout this 3,000-student district receives an HP Stream—the device GCS chose, after extensive evaluation, as the only one that met its criteria for full PC power combined with affordability.

A student who once posed behavioral problems learns to write music on his PC and becomes so inspired that disciplinary visits to the principal's office become a thing of the past. A child who is out sick asks her teacher to record the day's lesson so she can watch it at home. A teacher meets with a group of peers for Saturday morning "IT Teacher Academy" sessions to learn/share instructional technologies that bring new life to classrooms.

These are just some of the successes of Greeneville City Schools' digital transformation, recognized by the College Board for excellence at creating opportunities for traditionally underrepresented students. Out of approximately 448 total GCS employees, 242 are teachers—134 teachers hold master's degrees and 21 have specialist degrees. This highly professional staff is supported by an administration and a community committed to preparing students for the jobs of tomorrow. "Our goal is to facilitate and transform the learning experience for our students, so they gain skills that will help them succeed throughout their lives," says Larry Jones, Greeneville's IT network administrator.

District pursues "sustainability model" for 1:1 PC program

Greeneville City Schools introduced PCs into its environment many years ago; at first five to a classroom, then in special computer labs, and then in laptop carts. District leaders recognized the need for a 1:1 PC program in which students could take their devices home. But rather than rush headlong in, they carefully orchestrated a multi-dimensional program addressing funding needs, technology selection, deployment logistics, instructional design, and teacher training. "We did not take this decision lightly, because we knew it was a significant investment on the part of our taxpayers, and if we didn't prove successful during this initial 1:1 deployment, we risked robbing future students of the opportunity," recalls Beverly W. Miller, assistant director of schools and CTO of Greeneville City Schools. "I knew I couldn't say, 'Let's buy these computers because we have enough money this year.' We had to do it with ongoing sustainability."

HP Stream prevails in exhaustive search

Greeneville City Schools overcame the funding hurdle when the GCS Education Foundation, in a campaign spearheaded by local businesses, raised $750,000 to pay for new technology. Next came the challenge of selecting the right PCs. They consulted other school districts, attended trade shows, performed best-practice benchmarking, and evaluated approximately a dozen models from six major vendors. "We wanted to evaluate all of the best-in-class products on the market," Miller recalls. "You name it, we looked at it. The HP Stream was the only device that met our requirements and fit within our affordability range."

HP Stream is a lightweight notebook PC fully endowed with the Windows® 10 operating system. "We did not want to make the digital divide any wider than it already is. We wanted to make sure our students could go home each evening with a device that could run the full Microsoft Office suite, independent of Internet connectivity," Miller says. "For me, that's when the HP Stream rose above all competitors. Our inquiries had shown us that some other school districts were buying devices that cost more but were not as robust and functional as the HP Stream."

Greeneville City Schools piloted 250 HP Streams at its EastView Elementary School and ultimately chose a model with a 64 GB hard drive. HP Partner Central Knox served as the HP reseller and imaged the 1,200 HP Streams deployed at the initial roll-out. Greeneville's base image includes Microsoft Office 2016, three major browsers, Java, Flash, and anti-virus software. One of the great attractions to GCS was that HP supported the district as a self-maintainer. Greeneville purchased 10% more devices than it had students, to have spares available as needed, and cut costs by having five of their in-house IT staffers HP-certified to manage warranty service. The IT staff also has imaged the computers for subsequent rollouts of approximately 200 PCs each.

Empowering teachers to use technology effectively

Greeneville City Schools understands that classroom technology success depends on how effectively teachers embrace and use it. The district offers professional development (PD) sessions and created an "IT Teacher Academy" that meets on select Saturday mornings to have teachers share knowledge. "PD in your PJs" uses videoconferencing to deliver live trainings at night. Five content instructional specialists and a part-time IT instructor provide ongoing, embedded support in the schools daily. The cloud-based Office 365 tool, accessible to authorized users from any browser-enabled device, has transformed not only how students communicate with teachers, but also how GCS administrators, teachers, and staff share information with each other. "Our district's culture of encouraging and supporting innovation allows teachers to try new things, ask for help, and collaborate to deepen their learning," says Pat Donaldson, Greeneville coordinator for teaching and learning. "Professional learning is an essential part of our district. Teachers receive differentiated support for their learning as we expand the use of technology in the classroom."

As a result, teachers are growing proficient at delivering content digitally using resources such as OneNote and Canvas, says Daniece McAmis, EastView Elementary School media specialist. "Teachers are beginning to produce cohesive units of study drawing from the many programs, websites, and digital versions of our adopted textbooks," she says. "They receive data from online student assessments and can immediately address weaknesses instead of waiting until they have time to grade student work."

Content-rich classroom collaboration

Today Greeneville City Schools has approximately 2,500 HP Streams in grades 2 through 12. Second-grade students leave theirs in the classroom at night; the rest may take them home. Students use the devices to access web-delivered instructional tools—such as BrainPop animated programs for elementary schools and Discovery Education digital textbooks—or course material created by their teachers. GCS also has a team developing new digital resources for the district. Students report that it's much easier to carry their lightweight HP Streams than a stack of textbooks.

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In the classroom, the devices allow teachers to help each student learn at his or her own pace. "Our Canvas learning management system allows our teachers to construct rich and engaging content so that each child can work independently," says IT Network Administrator Jones. "The student who grasps material quickly is not held back by the student who may be struggling. Similarly, a student who needs more help needn't say 'Yes, I've got it' to avoid embarrassment. This technology lets teachers give students more personalized, one-on-one attention."

One of the biggest differences in the classroom is the reduction of worksheet-driven instruction, Media Specialist McAmis says. Instead of coming in to pages of "morning work," which was the norm, students now begin their day with varied computer assignments and practices. Assignments may be for the entire class. For example, when fourth graders begin a new unit on the Revolutionary War, their teacher may assign them a Discovery Ed board to introduce the topic. However, these computer tasks are often individualized to meet particular student needs and interests. The result is increased student commitment, because students have more choices and control over the content they learn, the speed at which they progress, and how they show topic mastery—including digital presentations, blog entries, videos, and written reports. "Students are no longer required to meet teachers' expectations in the same way at the same time," McAmis says.

Customer at a glance

Application
Grades 2-12 education leveraging Canvas learning management system, Microsoft Office Suite, and web-based digital learning tools such as BrainPop and Discovery Education

Hardware
- HP Stream Notebook PC

HP services
- HP Self Maintainer

A limitless learning adventure

Placing an HP Stream in each student's hands opens the door to endless opportunities, says DeAnna Martin, principal of Tusculum View Elementary School. "As a principal, I am able to interact, collaborate, gain feedback, and send out pertinent information to students in my school by email. Teaching has a different look now. Teachers can easily incorporate videos, individualized learning, and digital text into lessons."

As for the future, Greeneville City Schools keeps its eye on emerging technologies such as 3D printing and virtual reality, knowing that the broad portfolio of HP solutions is keeping pace with advances in instructional technology. "Everything is changing all the time," says Chuck Broyles, GCS IT operations administrator. "If you are in the process of creating and reviewing your future technology strategies, look a decade down the road. Plan to future-proof."

Adds Teaching Coordinator Donaldson, "Effective use of technology like the HP Stream is an ongoing, rich, limitless learning adventure for both students and educators in our district."

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4AA7-0124ENW, May 2017