

HP in the classroom: Kershaw County School District builds model success

1:1 learning environment flourishes when students equipped with HP Business Notebook PC



Kershaw County School District

“Thanks to HP’s understanding of what it takes to be successful in education, our 1:1 i-CAN program has transformed the way our faculty teaches. Using their HP Notebooks, kids have moved from being passive receivers of information to being actively engaged in the learning process.”
– Dr. Agnes Slayman, Assistant Superintendent for Curriculum and Instruction, Kershaw County School District

HP customer case study: Kershaw County School District creates model interactive 1:1 learning environment with HP notebooks, cameras and network infrastructure

Industry: K-12 education

Objective:

Embed technology in classroom instruction countywide

Approach:

Deploy a comprehensive HP solution centered on equipping each student with an HP Compaq Business Notebook PC. Additional solution elements include HP digital cameras, servers, wireless networks, lease financing, consulting and professional development

IT improvements:

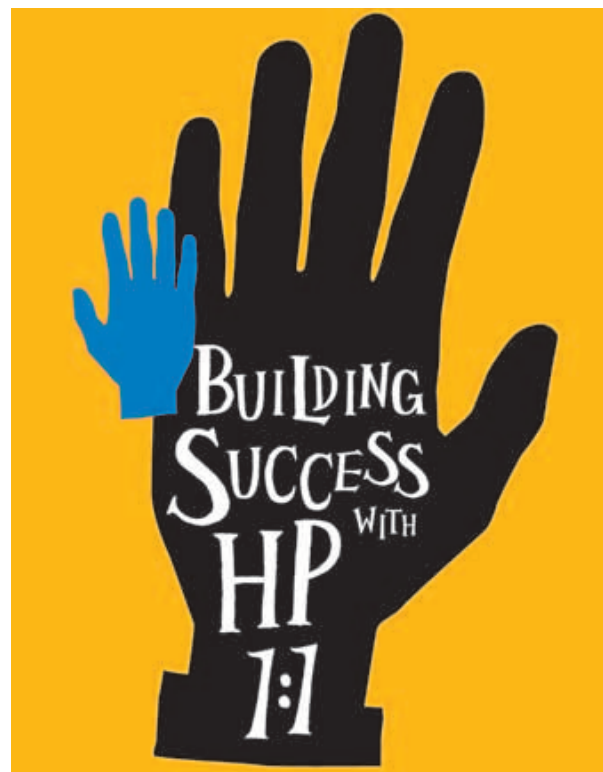
- Expand the learning environment beyond school walls
- Create multimedia, interactive classrooms
- Integrate technology into curriculum effectively through staff training
- Refresh and maintain equipment through warranty
- Ensure equipment performance and reliability

Business benefits:

- Engage students in active learning
- Prepare students for success in higher education and work world
- Enhance parent and community involvement in education
- Level socio-economic and special-needs playing fields
- Manage and sustain financing with lease agreement

Thanks to the long-established success of Kershaw County School District’s (KCSD) 1:1 i-CAN program, a camera panning the environs of the Kershaw County, S.C. public schools would see a multitude of thrilling sights: students clicking away on HP Business Notebook PCs, absorbed in learning in a variety of settings from classroom discussion to collaborative project-based work.

School district officials will tell you: HP Notebook—supported by HP digital cameras and an infrastructure of HP servers, network switches and access points—have transformed KCSD from a technology backwater into a model of achievement-oriented success. In fact, South Carolina today has followed Kershaw County’s lead by piloting notebooks in at least six additional



Customer solution at a glance

Primary applications

Classroom instruction, student projects, parent/school collaboration, administrator and teacher literacy

Primary hardware

- HP Compaq Business Notebook PCs including models HP Compaq nx6320 and 6710b Notebook PC
- HP battery packs
- HP Photosmart Digital Cameras
- HP ProCurve switches and wireless access points
- HP ProLiant servers

HP Services

- HP Consulting expertise
- HP Financial Services leasing agreement and four-year warranty
- HP Professional Development with Classroom Connect

school districts across the state, with a statewide implementation in mind.

“After experiencing the learning environment we created using HP notebook PCs, students who leave Kershaw County School District are going to be able to compete with anyone worldwide,” says Dr. Agnes Slayman, KCSD’s Assistant Superintendent for Curriculum and Instruction. “It says a lot that the entire state has chosen to embrace the same vision that Kershaw County and HP developed in partnership.”

How HP and KCSD together achieved this success is a study in thorough planning, collaborative problem solving and precise implementation:

A vision of interactive learning

The largest employer in this historic South Carolina county—site of 14 Revolutionary War battles—the Kershaw County School District serves over 10,000 students across 20 campuses. More than a decade ago, KCSD had deployed desktop PCs in the schools, but a recession-driven funding cut had left the computers obsolete. “It was frustrating and inefficient to be working with such antiquated equipment,” Dr. Slayman recalls.

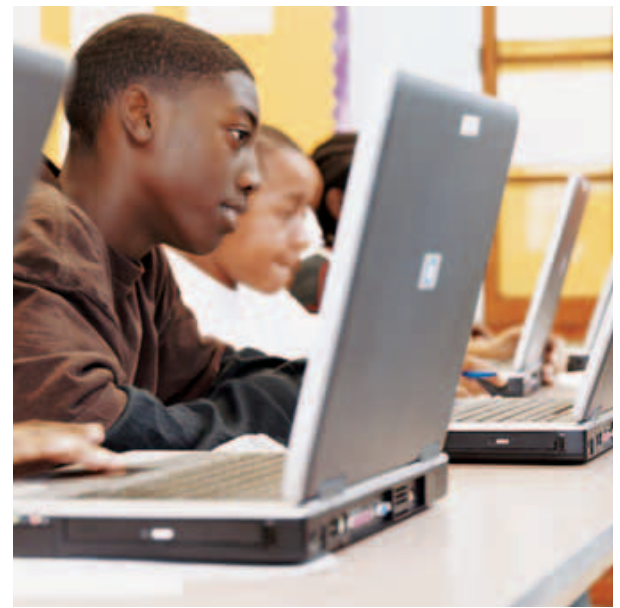
The old computers had been used mainly to teach keyboarding skills; in the elementary schools, they ran remediation software programs for struggling students. District administrators, including Dr. Slayman, and the school board, however, held a larger vision. They wanted to implement technology across all district courses and programs, to create a fully interactive learning environment supporting a wide range of learning styles. This would engage students in collaboration and critical thinking, they reasoned, while giving them the technology skills to compete in higher education and the world of work.

“Our goal was to deploy a solution that would be so embedded with classroom instruction that it would be an integral part of a child’s life, just like a text book,” Dr. Slayman explains.

Benchmarking best (and worst) practices

Having once made technology investments with unsatisfactory results, District officials took pains to learn from experience. “We had to examine the way we acquired equipment, because we determined that the historical process of purchasing technology outright left us with aging devices that we couldn’t afford to dispose of, replace four years later or continue to maintain/upgrade,” Dr. Slayman says.

How could KCSD restructure its finances, curriculum and technology implementation to maximum



advantage? To answer this question, officials first studied other districts.

“We talked to a lot of different states, and we found that you can’t just order equipment without training users on how to integrate it into instruction on a daily basis,” Dr. Slayman recalls. “When teachers and students got frustrated and didn’t know how to manage the technology, they put it aside to gather dust. That’s an expensive waste.”

Looking closely at their own district, KCSD officials saw that many students had no access to technology outside of school. To meet their goal of increasing parental involvement, they knew that any technological solution would also have to embrace the community. “At a basic level, we wanted parents to be able to check on their child’s progress, to support school assignments and to also level the playing field by providing access to technology for all students,” Dr. Slayman explains.

HP proposes plan

When it came time to pick a solutions partner, KCSD invited five technology vendors to make proposals. Later the field was narrowed to three vendors who made recommendations to district administrators and staff. HP as one of the invitees described its vision of how KCSD could use cutting-edge technology to change the classroom environment and encourage children to become active learners. After a six-month vendor evaluation process, HP took the lead with a three-pronged proposal: equip every child with a laptop PC for optimal access to technology; finance the acquisition with lease payments to make the equipment affordable; provide technology support; and train educators to use the technology effectively.

“HP came up with the most comprehensive solution—one that addressed teacher training, finance and new technology,” Dr. Slayman says. “It included a strong professional development component to train our teachers how to integrate technology into teaching. And, HP addressed our financing concerns through a lease contract with built-in refreshment.”

Unable and unwilling to incur the capital expense of an outright purchase, the district worked with HP Financial Services on a lease agreement that provides yearly access to state-of-the-art equipment, including notebook PCs, servers, wireless access points network switches and tech support. The district also selected a warranty option on all devices in an effort to decrease the need to budget for repairs.

“By leasing the equipment, our budget became more predictable and manageable,” says Dr. Slayman. “And because the equipment is on a four-year lease, we’re able to avoid the obsolescence issues that plagued us in the past.”

Having decided to equip each student with a notebook computer, KCSD named its technology program “1:1 i-CAN.” To establish metrics for measuring program success, it performed a baseline assessment before rolling out training and new technology. This study examined the frequency of PC classroom use, student and teacher competency levels, frequency and ease of communication between home and school, and parents’ skill levels. Later data has been gathered in areas such as grades, attendance rates, classroom dynamics and the level of positive engagement during instruction.

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Teaching the teachers

Understanding exactly what KCSD needed in terms of professional development, HP teamed with Classroom Connect, an educational technology division of Harcourt Education. Together the partners designed and conducted a pre-assessment of KCSD teachers and grouped them according to technology skill level, slating the most sophisticated to mentor others. Classroom Connect also sent trainers on-site to mentor teachers and to conduct workshops and seminars for teachers, administrators and school leaders. Some 140 staff members received training.

“The instruction started with basic hardware orientation, and then moved into the integration of technology with the content,” Dr. Slayman recalls. “Faculty learned how to develop lesson plans using the

technology, how to manage the notebooks in the classroom, how to monitor student use in the classroom, how to use projectors and digital cameras in lessons, and how to leverage online resources.”

Since KCSD sees staff development as a continuous process, Classroom Connect is slated to return regularly for ongoing support.

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Updating the infrastructure

While the financing and training were underway, HP experts analyzed the district’s legacy environment, architected an overlay of the older system and implemented necessary changes in the infrastructure. New devices went beyond PCs and encompassed HP ProCurve 5304xl, 2626 and 2650 switches, HP ProCurve access points and HP ProLiant servers.

“If the infrastructure can’t support what you’re going to do, it’s going to be a problem later,” Dr. Slayman says. “We wanted to make sure we were going to be ready for roomfuls of students with laptops.”

Over a three-month period, five campuses were configured to accommodate campus-wide and common-area wireless environments. An HP project manager worked with Dr. Slayman and her staff to ensure that all components were properly installed. The infrastructure was upgraded outside of school hours to avoid any disruption to the learning environment. HP also helped KCSD pick the optimal student computer:

“We relied heavily on HP’s recommendation to help us deploy a laptop that would meet our needs for performance, weight and reliability,” Dr. Slayman says. “Our selection of HP Compaq Business Notebook PCs was based on all of these aspects and in particular, its durability to withstand the classroom environment as well as being transported to and from home.”

KCSD bought extra batteries for the notebook PCs. It also deployed additional laptops in each of the media centers for use by those grades outside of ninth, where the first equipment rollout was to occur. Special software was installed on the notebook PCs for theft protection, and other software is used to help keep students out of inappropriate web sites and chat rooms. Finally, KCSD centralized functionality to enable automatic rollout of software updates to all the laptops when they connect with the school district’s wireless network.

In addition to the laptops, faculty also was equipped with HP Photosmart Digital Cameras. To ensure that HP technology solutions are running optimally at all times, all high schools have an on-site HP technician.

"At the district level, we have matched HP's commitment to our success by implementing an instructional technology coach within each high school. That person demonstrates lesson plans, helps faculty leverage the technology further, and sustains the momentum towards entrenching the use of technology throughout the curricula," says Dr. Slayman.

The big rollout

In January 2005, with the culmination of all this painstaking preparation, 815 ninth graders received the HP Compaq Notebook PCs for the first time.

"We started with the ninth grade students," Dr. Slayman explains. "Each subsequent year's ninth grade has been equipped with the latest technology, and now all of our high school students have a laptop PC that's no more than four years old."

Three "amazing" things happened almost immediately upon rollout, she continues. First, on the very day students received their computers and completed basic training, they returned to the classrooms and engaged immediately in PC-based lessons. Second, the equipment "leveled the playing field" between mainstream and special-needs students, giving them a similar range of PC skills. Third, it also brought equality from a socio-economic perspective; everyone has the same equipment regardless of parental income, and all ninth graders have the tools to complete assignments.

"HP Technology is driving students to want to learn more," Dr. Slayman says. "Children who were previously uninterested in school are now active participants in the classroom. It has transformed the way our faculty teaches—it is more creative, and assignments are more rigorous and more relevant to what a student will encounter in life."

There were a few surprises as well. On the down side, students spent more time chatting than teachers had

expected, instead of working on assignments—so instant messaging had to be blocked. The students also proved to be adept hackers. This called for stronger firewall security measures. On the plus side, the technology became an unprecedented teacher recruitment and retention tool. Even teachers from more affluent districts wanted to move to KCSD, and veteran teachers felt so rejuvenated they postponed retirement. Meanwhile, parent/teacher communication increased exponentially. "That's a mark of effective schools—parental involvement," Dr. Slayman says.

The district recently deployed a secure web site containing details about lesson plans, tests, and homework, so that parents can stay involved; and future plans include, posting student grades for families to review. In addition, HP worked with KCSD to give Kershaw County residents the option to order online the same equipment the district uses—including notebook PCs and cameras. "It helps build consensus and support for what we are doing," Dr. Slayman says.

So successful has been the KCSD experience that South Carolina's Department of Education is moving to adopt the concept statewide.

"The state department of education made the decision to pilot a laptop program in other districts throughout the state. Because of our success we have been visited by some of those districts who will implement this type of program," says Dr. Slayman. "It's a reflection of success when other districts visit and seek to replicate the vision of a school system."

Reflecting on the journey from obsolete computers to cutting-edge technology integration, Dr. Slayman keeps in mind the ultimate purpose of KCSD's educational mission:

"We entered this technology integration project in order to equip our children with the skills necessary to compete nationally and globally," she says. "We believe that when our graduates compete in higher education and compete for jobs ours will have the edge because of their skills and aptitude in technology."

To learn more, visit www.hp.com

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