Samsung Chromebooks Help New High School Realize Its Vision for Student-Centric Learning

OVERVIEW

Customer Need

In planning the opening of the new El Capitan High School, the Merced Union High School District in central California sought to create a more engaging, student-centric learning environment to engage its diverse student population. Choosing to forego lockers and printed textbooks entirely, El Capitan needed a one-to-one computing device that was affordable, easy to manage for both IT and teachers, and would provide students access to a wealth of web-based learning resources.

Samsung Solution

El Capitan selected the Samsung Chromebook as the standard school-issued computer for the 2013/14 academic year. An entirely new kind of computer, Chromebooks are cloud-based so they boot up quickly every time, don't slow down and can be managed centrally by the school's IT department. Although students were given the option of bringing a tablet or notebook from home, nearly 95 percent quickly opted to check out a Samsung Chromebook for their studies.

Results

Samsung Chromebooks have provided El Capitan an ideal tool to realize its vision of a textbook-free, digital learning environment. As excitement spread in the Merced community about the planned one-to-one computing program, enrollments for the 2013/14 school year swelled from the anticipated 650 to 765. Teachers are reporting higher levels of student engagement and attendance has topped 96 percent. Although it is early days, there are clear signs that the more self-directed, personalized learning environment at Merced will have a positive impact of student learning outcomes.

THE NEW
BUSINESS
EXPERIENCE

SAMSUNG

THE CUSTOMER
El Capitan High School,
Merced, CA

The Merced Union High School District serves a student population of approximately 10,000 across 10 locations in the townships of Atwater, Livingston and Merced in central California, nearby Yosemite National Park.

A diverse community, Merced and neighboring cities were hard hit by the financial crisis. Unemployment has topped 18 percent, 84 percent of students qualify for free and reduced lunches, and – according to the California Department of Public Health – the area had one of the state's highest teen pregnancy rates. The district has sought new ways to better engage a generation of learners who have grown up as "digital natives" and to raise academic achievement.

In 2011, Merced Union announced plans to open a new high school in growing north Merced, near to the University of California. For the district, El Capitan High School represented a new vision for teaching and learning – a more collaborative, self-directed model that would encourage high school students to take greater ownership of their education.

El Capitan's 53-acre site would feature interconnected buildings wrapped around a large, central quadrangle – more akin to a university campus than a traditional high school. And from early in its planning, the district set another ambitious goal: replacing student lockers and printed textbooks with more engaging, 21st century learning tools.

"Many of our families depend solely on our school to equip students with skills need to do well in college and career," explained Anthony Johnson, principal of El Capitan. "It was critical that we provide the learning environment and tools that addressed both the academic gaps and the gaps in technological skills of the students we serve."

THE CUSTOMER NEED
21st Century Tools for a New High School Learning Model

Merced Union High School District had been experimenting with numerous approaches to expanding student access to technology for more than six years, according to Anthony Thomas, the district's IT manager. "We looked at laptop PCs but paying $1,000 for each device wasn't really feasible… and then the economic crisis came along," he recalled.

Beyond the cost of acquisition, ease of deployment and management were also critical for a school district with a limited IT headcount. Pilots utilizing "netbooks" had never been scaled up because of the time and resources needed to image and set up each device, and then respond to the inevitable troubleshooting calls.

Another key factor was finding a device that booted up quickly and wouldn't stand in the way of effective teaching. "We needed to have 99.999% uptime because when you are in the classroom, you don't have time for things to go down," Thomas said.

Most importantly, the technology needed to provide access to digital learning resources, productivity applications and multimedia tools to support the collaborative and creative learning environment El Capitan had envisioned for its students.

Having laid the foundation with the roll out of a state-of-the-art wireless internet infrastructure with 132 hotspots, Merced began a comprehensive vetting process to select the standard student computing technology for El Capitan's first intake of students for the 2013/14 school year.

"We had all the major vendors demonstrate their technology," explained Thomas. "Our advisory group included administrators, technicians, teachers, students and even parents. We split into groups with a mix of people in each and moved around the stations so everyone could test each of the devices."

According to Thomas, the decision was clear. While some of the adults in the advisory group were attracted to the tactile appeal of the tablets on offer, the students showed a clear preference for a device that was easy, fast and allowed them to get work done. At the top of their list was the Samsung Chromebook.

THE SAMSUNG SOLUTION

Samsung Chromebooks Help Students to Take Control of Their Learning

Under El Capitan's BYOD policy, students enrolling for the 2013/14 school year were offered the choice of bringing a device from home or checking out a school-issued Samsung Chromebook from the library. After just a few weeks, nearly 95% had opted for the Chromebook. "Initially, we had a larger number that brought in laptops or tablets from home, but – after seeing how fast and user-friendly the Chromebooks are – we had a second wave of students switching over," said Thomas.

A new kind of computer that runs the Chrome OS, Chromebooks are cloud-based so they boot quickly every time and don't slow down over time. Students and IT administrators do not need to worry about updating applications or virus protection software, and student work is saved safely on Google Drive. The Samsung Chromebook is light and portable at just 2.43lbs, while offering a full-sized keyboard and up to seven hours of battery life.

For Merced Union, Samsung Chromebooks offered a highly cost-effective approach to achieving its goal of a computer for every student. Not only are Samsung Chromebooks priced considerably lower than traditional notebooks, by using the web-based management console (available from Google for an additional $30 per device) IT can easily track, manage and customize their fleet of devices.

Deploying the Samsung Chromebooks has also allowed El Capitan to achieve its objective of eliminating printed textbooks, which Thomas said has generated significant savings in itself. "When you pay more than $100 for a textbook and you have four or five textbooks per student, that is a major investment and was a major reason for us wanting to go one-to-one with Chromebooks," he said. "And if a student did happen to lose or break a Chromebook, it's really just like losing a textbook or two, which happens to pretty much every student at some point."

El Capitan still utilizes digital textbooks, but the Samsung Chromebooks provide teachers and students access to many other web-based learning resources as well as thousands of apps from the Chrome Web Store. The built-in camera also enables students to create videos or hold web-chats with students or experts in other states or countries.

"There are many resources out there and really a textbook is just one of those resources," Thomas said. "Most of our teachers use a chapter or two from the digital textbook but the rest is all about applications, resources and tools – it's been interesting to see the shift in teaching approach taking place."

Merced Union has placed a heavy emphasis on professional development to help teachers maximize the benefit of the Samsung Chromebooks. Training is held at both a district- and school-level on a monthly basis to ensure skills are continually built upon. "We try to keep it practical so teachers leave with something tangible to apply like a specific lesson plan."

THE RESULTS
New Learning Environment Drives Enrollments, Attendance and Engagement

El Capitan High School was scheduled to open with 650 students for the 2013/14 school year, but this number swelled to 765 for the first day of school as the word got out to the Merced community about the school's exciting plans.

Attendance has also been tracked within the district, with a 96% turnout for the first two months. "Kids are more engaged and more excited to come to class each day," said Bobby Johnson, a math teacher at El Capitan with over 28-years classroom experience.

Teachers and students alike have adapted eagerly to the introduction of Samsung Chromebooks into the learning environment. "Start-up time for class is incredibly easy and quick," Johnson said. "I'm surprised at how few issues I've had. With the Chromebooks you can research any topic right away. Also, a kid who is absent can link up to an assignment or lesson and easily catch up on missing work."

Students are exposed to a variety of instructional resources that range from videos, to teacher-created Google-form quizzes or educational apps, all empowering students to take control of their learning. "We've seen the teacher truly take more of a blended approach of rigorous direct instruction and facilitated learning using the technological tools they continue to find," said Anthony Johnson, the El Capitan principal. "Ultimately this works to individualize learning for students who truly need more individual attention. With a diverse student population like ours comes a need to frequently differentiate instruction."

Students who do not grasp a topic initially can simply rewind and review particular parts of instruction. They can also share notes and ask questions through chat and email.

For the IT department, seeing the positive impact the Samsung Chromebooks are having has been exciting. And since the Chromebooks can be managed easily through the management console, the team has been able to focus its energy on other areas such as training and sharing best practices.

While there is no summative assessments data available yet to measure the effect on learning at El Capitan, the district has seen fewer failing grades and a rise in the number of students with a G.P.A. of 3.0 or higher at the end of the first nine weeks.

Johnson says that Samsung Chromebooks have played a key role in achieving El Capitan's vision for a college-like learning environment that better prepares them for higher education and the workforce. "Beyond high school, students at El Capitan will know how to research information on the web and how to use this information to justify and inform their opinions and decisions," he says. "The Chromebooks are a tool that gives students the power to finally merge the digital world they experience outside of school with the activities and lessons they experience inside of school. This has definitely led to an increase in student engagement."

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