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— Margaret McGee, Principal, St. Mary’s Elementary School

HP customer case study: Edmonton Catholic School District

Industry: Public Sector (Education)

Objective:

Explore the gains in education made possible by optimizing the use of information technology

Approach:

Provide HP desktops, servers, notebooks and tablet PCs backed by HP Care Pack services

Academic benefits:

- Reliable educational services delivered by HP desktops, notebooks and servers
- Having local access to expertise through HP Technology partner, Metafore
- Enhanced collaboration through sharing a single workspace wirelessly
- Greater ability to offer customized instruction incorporating multimedia
- Increased quality and quantity in student work
- Greater student engagement and focus
- Greater creativity by students in solving problems and expressing ideas

Technology improvements:

- Pen stylus, handwriting recognition, and built-in microphone improve input flexibility
- Rotating screen , tablet option, and wireless connectivity improve deployment flexibility



Doing their homework: Selecting HP

One hundred twenty years ago, three nuns in Edmonton, Alberta began to teach 23 Catholic students. Their work grew. Then it grew again. Today, the Edmonton Catholic School District provides publicly-funded Catholic education to 32,000 students in 84 area schools.

Supporting that education is largely an HP infrastructure. HP has been a preferred vendor for years, and in many critical areas the district standardizes exclusively on HP technology. HP partner Metafore provides the district with HP desktop PCs under an umbrella contract and also provides services such as warehousing and hardware staging. The district has declared HP the recommended standard for notebooks and equipped its schools with HP ProLiant and BladeSystem servers.

“We’ve had great success with HP,” says Mike Carby, director of technology services for the school district. “The hardware is dependable and they’re a great company to work with. I can’t emphasize enough, the need for us to have stability in the services that we provide. If the infrastructure and support for administration isn’t working, we’re not going to have the time or money to put into better education.”

Solution at a glance

Hardware

- HP Compaq 2710p Notebook PCs

Software

- Microsoft Office 2007
- Microsoft OneNote

Operating System

- Microsoft Windows Vista Business

HP Services

- HP Care Pack services

It's not your grandmother's school

There's a method for determining what technology is right for each individual school or student. It's asking the question: "what difference can technology make to enhancing learning? What if each student had a notebook computer to use at school and at home?"

To explore this possibility, the Alberta Education department launched a "one-to-one" mobile computing program and in late 2007, the Edmonton Catholic School District took part by starting a three year initiative at St. Mary's Elementary School. One hundred thirteen students in three fifth grade classes and one sixth grade class, along with their teachers, have been given HP Compaq 2710p Notebook PCs to use throughout the school day, and then take home.

These HP notebooks come with some new tools for learning: A pen stylus that writes on the screen, handwriting recognition, wireless connectivity, built-in microphones, and the ability to share a workspace online in real time. The notebook's screen can also rotate and lay down flat on the keyboard to turn the 3.7-pound 1.1-inch thick system into an easily-carried tablet.

What happens to learning when these HP features are available? A handful of school staff gathered to review developments—and they could barely contain their excitement.

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Margaret McGee, Principal, St. Mary's Elementary School

All together now

"Much more collaboration takes place," says Joseph Estephan, a sixth grade teacher. "It's between teachers, students, classes, and even schools. Everyone's busy, but now you can meet without being face-to-face."

More gets done during those remote meetings thanks to new technology, says fifth grade teacher Daryl Jones. "With the HP notebooks and Microsoft OneNote software, teachers and students can do live collaboration and sharing," he observes. "With a feature called Shared Notebook, each person can see and respond immediately to what the other person is writing on the tablet, despite the fact that they're separated. They can do synchronous text editing and give each other feedback."

Teaching in new ways

Another fifth grade teacher, John Korassa, notices the tablets have a positive influence on his work. "My teaching is more enriched," he says. "I give more hands-on work. I encourage students to edit papers together. I even have a group right now collaborating at home to write a drama that will re-enact a book. And there are no more walls or boundaries. When their drama is complete, they'll present it to a class in the United States by video conferencing."

Raymond Rouleau, a technology mentor, points out that HP tablets make it easier for teachers to tailor a lesson for each student's individual learning style. Teachers can choose multimedia modules right for each particular student from many rich resource sites, such as learnalberta.ca. And the tablets can make more of a difference because students use them every day, compared to some other schools where students can use computers only during computer labs several times a week.

"The quantity and quality of student work has increased with the HP tablets," Jones notes. "It's easier for them to edit their work."

"With HP tablets, we're preparing our kids for 21st century skills."

Raymond Rouleau, Technology Mentor, St. Mary's Elementary School

Students get more creative

Students are also approaching assignments in new ways because of the tablets. "I'm seeing them take more time, find more than one source, and take more pride in their work," Korassa says. "They use more than one technology to express themselves, combining elements such as PowerPoint, a video link, and Google Earth."

Estephan observes that he's being changed as well. "The kids are teaching me a thing or two about the tablets and Microsoft Office," Estephan says. "We're all learning from each other. With the HP tablet's built-in microphone, and some knowledge of video editing, they're making multimedia presentations."

The tablets are being supplemented with other tools. "We've also deployed interactive whiteboards, video-conferencing and a district-wide portal presence," says Dan MacDonald, a specialist for the district in emerging technologies. "We view all these things as extensions of the value the HP tablets provide."

Everyone loves to learn

"We see an increased level of excitement and interest as teachers become new learners," says Margaret McGee, one of the school's two principals. "We see teachers engaging in far more creative dimensions in their teaching and learning. Students are more engaged."

Adds Marie Whelan, the school's other principal: "We have many visitors who come to observe this program. They consistently remark that wherever they see students with the HP notebooks—and there are many places and spaces for students at our school besides the classrooms—they are actively engaged. They're not wasting time."

Transitions are faster and more learning takes place, Rouleau says. "Now we have tabs for each subject in Microsoft OneNote, so students can transition smoothly with a click. As a group, we're estimating that each class period gains 10 percent more teaching time."

The stylus is mightier than the pen

"Many students find that using the stylus is faster and more fun than typing, making it easier for them to take notes," Korassa says.

The stylus also allows students to diagram solutions in math, which they can't do on a regular laptop. Adds Jones: "Diagrams help them explain their thinking in math. Some can't do that in written form, but they can in pictorial form."

But a skeptic might say: Isn't a stylus on a tablet PC the same thing as a pen on paper?

"No," says Lynn Gagnon, a fifth grade teacher. "We see students take risks in their thinking on the HP tablets because it's not hard copy. They can easily change or erase what they've written. So they're more comfortable exploring and getting a new idea out."

Estephan provides an example: "I gave a tough test on ordered pairs last week," he says. "At first my students didn't get it right. With the eraser on the stylus, they could clear their page and not have any messes or holes in the paper. As a result, I see them guessing, experimenting, and checking instead of just sitting there thinking and getting frustrated."

The return on investment

The school wanted tablets—not just laptops—and the reason was simple, according to Whelan. "We had already seen students use tablets in many more creative ways," she says. "So we convinced our tech department we should have them."

"It's worth it to get the tablets," McGee confirms. "We're seeing greater student engagement, greater interest in writing, and we love the energy."

"The quantity and quality of student work has increased with the HP tablets."

Daryl Jones, Fifth Grade Teacher, St. Mary's Elementary School

"With HP tablets, we're preparing our kids for the 21st century skills," Rouleau notes. "It's a world where they need to work collaboratively, and excel at research and problem solving."

"Students are going so much further," McGee sums up. "Their parents are tremendously supportive. I don't think anyone could now imagine a school without tablets."

To learn more, visit www.hp.com

To learn more about Edmonton Catholic School District visit www.ecsd.net

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