

Ursuline Academy, Dallas, Texas

Implementing in a Private School

Susan Bauer, the director of technology at Ursuline Academy of Dallas, knew that something had to change. Two years ago, the English class, Economics class, and six others all showed up expecting to use the same computer lab at the same time. Even worse, Susan knew that the school could never build computer labs fast enough to meet the growing demand, and that teachers would never permit a mushroom field of desktop PCs in their classrooms.

In many ways, the problem was a happy one, because it proved that teachers and students alike had embraced computer technology as an aid to learning a raft of subjects, from English and foreign languages to science and world civilization. And it served as an endorsement of a farsighted strategy adopted by the school in 1979; two years before the IBM PC popularized personal computing, when it began to introduce computers into the curriculum. That pioneering approach to technology might seem out of place for a private, Catholic school for girls in grades nine through twelve, founded in 1874. But Ursuline Academy has always had its sights trained on the future. The school was in the middle of the Texas countryside when it moved to its present site in Preston Hollow in 1948. It was the city of Dallas that followed suit, expanding so that Ursuline's idyllic, 29-acre park-like campus is now located in the midst of one of the city's most desirable suburban neighborhoods.

Moving Technology into the Classroom

The school approached its computer dilemma with the same sense of vision. It formed a 12-person technology committee including parents, faculty, administrators, and consultants. The key recommendation: to move computer technology directly into the classroom, where it would be more readily available to students and teachers. The committee recommended the school's first wide-area network. Faculty had some misgivings about the effect of large desktop machines in the classrooms, but it seemed an unavoidable price to pay for putting the technology where it was needed most. Or, at least, it seemed that way until November 1995, when Bauer and Academy Principal Shaun Underhill were invited to tour Australian schools using notebook PCs with their students.

"Our reaction was positive from the beginning," recalls Underhill. "About halfway through the visit, we turned to each other and said, 'This is the perfect match for what we want to do. Why didn't we think of this ourselves?'"

What impressed Underhill and Bauer was the high level of learning and creativity the students were able to achieve with their notebook computers. Learning could proceed at a personalized pace because students would use their computers anytime, anywhere to further their studies, and the children clearly demonstrated a healthy sense of ownership and responsibility over the PCs.

Gaining School and Parent Support

When they returned to Ursuline, Underhill and Bauer shared what they'd learned with the technology committee members who were equally enthusiastic. With the school behind the idea in principle, administrators decided to test the waters with parents. They sent a survey and held parent meetings to talk up the idea. At this point, they didn't know details of cost or other requirements; they just asked parents if they'd support the idea of notebook PC-based learning. The parents were effusive, with 90 percent responding positively. And no wonder: at least 60 percent of Ursuline parents already had a computer at home. With strong interest in notebook PCs, Ursuline had to decide in which grades to offer the program and whether to make it optional or mandatory. Administrators wanted to make the program mandatory to make it easier to integrate technology into the classroom in a uniform way and to avoid having families opt out for financial reasons. They wanted to limit the program to incoming freshmen because to do otherwise would mean changing the rules for students already enrolled. And with annual tuition running above \$6,400, the additional cost of a notebook PC would be a significant expense.

"Our mission is to produce citizens literate in the medium of our times, and the tool of our times is the computer," says Underhill. "We don't allow kids to opt out of being literate. On the other hand, we have to take an active role in finding ways for them to afford this new tool."

Parent interest in the program was so strong that Ursuline decided also to make notebook PCs available to returning students-sophomores, juniors and seniors, on an optional basis, but not to give those students any assignments that required the computers.

Making Decisions

With the broad outlines of the program in place, Bauer and her technology team began to specify the hardware and software requirements, so exact pricing could be settled.

"We knew standardization of hardware and software was crucial if we were to use the computers as a natural part of the classroom," says Bauer. "You can't do that with a home PC, or with non-standard software, because each computer will have different capabilities, making it impossible to give uniform assignments. And non-standard machines would make maintenance a nightmare."

The school had already standardized on the Microsoft® Windows® operating system and Microsoft Office Professional for its desktop machines, and it continued those same standards into the notebook program. Getting that same enthusiasm for a standard hardware configuration was more challenging. The school chose Toshiba, a powerful and cost-effective choice.

"Some parents wanted cheaper machines, others wanted top-of-the-line computers as a status symbol," recalls Underhill. "We held the line, although it wasn't easy. We made it clear that standardization was crucial for an effective program and an equal community, and that the computers were learning tools, not status symbols. The parents agreed."

The school put its hardware/software specification out for competitive bid, including a strong requirement for after-sales service and support with regular onsite visits and maintenance, a 24-hour toll-free number, and a hot swap loaner program, all to ensure that students would always have their repair problems addressed promptly. Parents would buy the computers through the school, with Ursuline retaining \$400 of the price for each machine to cover insurance, loaner machines, and additional software.

Ensuring Broad Access to Notebooks

With costs identified, the school began to consider the financial aid requirements of the program. Ursuline's existing financial aid program gave it a head start in identifying needy families, although families receiving a tuition rebate would not automatically receive the same level of support for the notebook purchase. As a private school, Ursuline had more discretion in determining aid than a public school would have, and it considered all relevant factors. In all, 20 of the 211 entering freshman received grants ranging from 75 percent to 40 percent. No family received a free computer, because the board and administration felt some financial contribution from the family was needed to instill a sense of ownership and responsibility in the children.

Financial support came from a variety of places. Grandmothers contributed. Some parents provided assistance to others. The day before the computers were distributed, an alumna brought the school a \$6,000 check for notebook support. A local bank arranged low-interest loans and some parents found similar financing through their credit unions.

Training Teachers

"There are several cogs that must work together if a program like this is going to work," says Bauer. "Standardization of hardware and software is one. Access to technology is another. Teacher training is the third. If teachers are not comfortable with the tools, then they won't use the tools."

And while teachers were definitely excited about the new program, they were also apprehensive.

"I thought it was very positive but I was terrified," acknowledged teacher Mary Openshaw. "The notebook computer program was the reason I accepted the teaching position here last year. I thought it was a challenge for me, one that presented wonderful opportunities."

"After 29 years of teaching, I don't jump on any bandwagon that comes along, but I do believe in using new techniques and ideas that show promise," says Spanish teacher Dina Benson, who's taught Ursuline students for the past five years. "The idea of using laptops without a well-proven model to follow was both exciting and frightening at the same time."

To make teachers like Openshaw and Benson more comfortable with the new technology, and to inspire them to use it to best advantage in their classrooms, Ursuline developed a comprehensive training program, expanding on its existing in-service program. Classes were offered two to three times each week, for two hours at a time, generally from 4 PM to 6 PM. Teachers chose which classes to take, and they repeated classes as often as they

wished. Classes explained how to integrate Windows and Microsoft Office into the daily curriculum, how classroom fundamentals change when technology enters the class, and provide a forum for teachers to exchange views, problems and solutions.

"The timing we used for the notebook program was also a key to reducing anxiety," says Underhill. "Introducing desktops and the network into the school was actually more stressful for teachers because suddenly, there it all was. With the notebooks, teachers became very supportive when they realized they could use the computers when they wanted to, then have the students put them away when they weren't needed. And the teachers had nine months for us to work with them between the time we announced the program and the time the first freshmen showed up with notebooks in September 1996."

"Our culture here is tremendously supportive," adds Bauer. "When one teacher raises a concern, the others help him or her address it. The faculty support is one of the most gratifying aspects of the program."

Ursuline's "one step at a time" approach to notebook use in the classroom contributed greatly to the program's success.

"We told our teachers that they were already doing a great job, and that we just wanted them to look at one or two ways they could enhance their existing curriculum," says Bauer. "We made it clear to parents, students and teachers that we wouldn't suddenly do everything differently just because we were adding notebook computers. They'd be used-but only when appropriate."

In any organization, leaders set the standard. Underhill's reliance on email as the primary means of communication encouraged teachers to use it as well. Email solved the problem of communicating with teachers who didn't have phones on their desks, and who might otherwise be unreachable for hours at a time. As the teachers responded enthusiastically to email, their support for technology, including notebook PCs, increased as well. Underhill also made notebook use a part of teacher evaluations that year. For the first time, teachers were asked to provide the principal with a sample lesson plan incorporating notebook use.

Buddha in a Spreadsheet

If Ursuline teachers and administrators had any doubts about student interest in, and benefit from, the notebook computers, those doubts were soon put to rest. Teachers reported that students began using their new notebook PCs from "the first hour of the first day," according to Bauer, and they've been enthusiastic ever since. In Carol Hammond's freshman social studies class, students were using their notebook PCs to improve their writing skills and make work easier to find and organize. "It's very important for students to learn to compose on the keyboard, because that's what they'll need to do in the real world," said Hammond.

Frequently, teachers and students were putting Microsoft Office to use in ways that the original software developers surely never envisioned. In Mary Openshaw's world

civilization class, students used the Microsoft Excel spreadsheet program to compare and contrast the lives and teachings of Buddha, Mohammed, Jesus, Moses and other religious figures. Elsewhere, students used the organizational charting features in Microsoft Word to create world history timelines. Foreign language classes used Word to create travel brochures, Microsoft Access to maintain vocabulary databases and the PowerPoint® presentation graphics program and the Internet to create up-to-the-minute presentations.

"What I see with the laptops is amazing," says Spanish teacher Benson. "Girls who've struggled with pen and paper are blooming with our laptop projects. It shows me and them that they understand the concepts and are learning. They just need to learn in a different way, and the laptops allow that. Nothing motivates like success, and you can't pay for the type of motivation I'm seeing in the classroom. I wouldn't have traded this year for anything."

"We're seeing students being much more creative than they had been in the past with the same assignments," said Underhill. "Because the notebook PCs make it easier to do the work, students can spend more time thinking about what they're doing. Revisions are easier so they can experiment with more alternatives. Students are really thinking more and better. They're really communicating."

Looking Ahead

As far as it's come, Ursuline sees room for even broader use of notebook PCs in the years ahead. The addition of networking cards will put the notebooks on the school's network, allowing students to communicate and collaborate more easily with each other, and to access the Internet. An Ursuline alumna has already volunteered to help organize an online mentoring program to encourage students interested in careers in science and engineering. And expansion of the program both to more Ursuline students and to the faculty will make the technology an even more pervasive part of the Ursuline culture. For Ursuline Academy of Dallas, innovation is part of a century-old tradition. And it's a tradition that Ursuline is continuing and honoring with its pioneering adoption of notebook PC technology.

1999 Update

Ursuline has continued to expand the program to include teachers and students in all grades, 9 through 12.