

## **LanSchool Case Study**

### **Northern Arizona University, College of Business**

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Confucius is credited with saying, "I hear and I forget; I see and I remember; I do and I understand." That statement summarizes the age-old challenge facing higher education: How do we as educators convert students from passive observers to active participants in the educational process? At the Northern Arizona University (NAU) College of Business, located in Flagstaff, Arizona, we think we've implemented technology that lays the groundwork for this type of learning.

Our computer information systems (CIS) instructors daily face the challenge of helping students translate the theoretical concepts of computer technology into practical, real-world application of those principles. In the fine arts, students receive classroom instruction on theory but make significant progress only when they pick up the paintbrush and start painting. In CIS, the same holds true. However, unlike fine arts, experimentation with computers—and particularly with software applications—often leads to frustration, dead ends, and unproductive use of limited lab time. With computers, nothing teaches like hands-on experience. But to be truly effective, that lab experience must be directed by the proven expertise of the teacher.

The College of Business has an enrollment of about 2,000 students. We have three large teaching labs with a total of more than a hundred PCs to serve this entire community. Classes cover the entire range from introductory-level business suite instruction to upper-division information systems management courses. With each computer course, the key to effective learning is to always put students in front of the PCs and let them actually use the software.

### **The Challenge of Doing**

One of our major challenges is keeping students focused on instruction. From the very start, we realized that if we put 30 students in front of computers with free rein, half will be on the Internet and the other half will be playing solitaire. No matter how dynamic the teacher is, sometimes the temptation is just too great. Effective learning is always the casualty. We wanted our students to have hands-on experience, but we simply lacked the staff to concurrently monitor student activities and guide students into the exploratory learning that is most effective.

While attending an educational technology conference in Phoenix, I saw a software product called LanSchool. This uniquely helpful tool lets teachers broadcast their computer screens to all PCs in their labs or classrooms. Realizing that classroom lectures (the hearing portion of Confucious' equation) simply don't work for CIS, and that projection of the instructor's screen (the seeing aspect), while much better, still doesn't adequately translate into effective learning, I found that the possibilities of LanSchool intrigued me. We bought an early version of the product, and we've stuck with it ever since.

LanSchool is a low-overhead software tool that removes distractions by giving teachers the option to lock out student control of PCs. With an instructor module installed on my PC at the front of the class and a student module installed on each PC in the lab, LanSchool uses the network to make our computer labs and classrooms an optimal teaching environment. Its broadcast, monitoring, and remote-control functions bring my students and me closer together. LanSchool increases the effectiveness of learning by eliminating distractions and increasing productive student interaction with the computer.

The immediate benefit of LanSchool was to give our instructors absolute control over every computer in the lab. When I'm teaching a class, I control what is on every monitor. If I'm demonstrating an application on my PC from the front of the class, each student sees every mouse click and keystroke on his or her own PC. If I need attention on me, I can black out every screen. I can even broadcast my actions in a window that gives students freedom to "play along" while I demonstrate. Allowing students to compare their actions with mine is an invaluable teaching tool.

### **Teaching Concepts, Building Skills**

We've found LanSchool extremely valuable for our entry-level CIS classes. Since we require business students at NAU to take a 100-level course covering the Microsoft Office suite, about 800 students use the lab each semester for this class alone. More than in any other class, this entry-level non-elective course presents the biggest challenge for keeping students interested. The course is fairly basic and mandatory, greatly increasing the tendency for students to block out the teacher. But we've found that they have difficulty ignoring the computer screen right in front of them. As we broadcast the application in use, without the distraction of the Internet or games, students pay closer attention to what we're trying to teach.

We wouldn't require the course if the department hadn't determined that these basic skills are necessary for success in business. If business students can see me use Word, Excel, or Access correctly in ways that apply to their future lives, they more quickly adopt those basic computer skills. When the time comes to use the applications for assignments or tests, students draw upon memory and the skills quickly become second nature. As we move towards more performance-based testing—assessing integrated skills as opposed to fact recall—the need for interactive, hands-on, real-world learning will only increase.

The benefits of LanSchool aren't limited to lower-level CIS courses. For my 400-level networking class that combines a lot of conceptual material with highly technical skills, LanSchool is equally valuable. From the front of the lab, I broadcast the day's lesson (in PowerPoint) to each student. They can concentrate on internalizing concepts rather than taking notes, confident that the PowerPoint file will be available later for study and review. But the real power comes when it's time to show the class practical application of the concepts. LanSchool allows me to easily bring up the network administration tool in a separate window and demonstrate the skills that support the theory. When it's time for the class to do their assignments, they're armed with more complete, practical, and applicable knowledge.

The ability to combine hearing, seeing, and doing has dramatically increased the effectiveness of our computer information systems instruction. For the classroom control issues alone, LanSchool is immensely worthwhile. But the fact that it brings students into an understanding of concepts and a real-world application of skills makes it irreplaceable.

For more information on LanSchool products visit <http://www.lanschool.com>, call 877-370-5546 or e-mail us at [support@lanschool.com](mailto:support@lanschool.com).

