

Improving Line-of-Sight Viewing in Computer Labs

by Larry Hatch

Maintaining a clear line of sight in computer labs helps students and instructors see each other, which is especially important for visual learners and lip readers.

Students today are literally being lost behind their computer monitors. Faculty go into a classroom to teach and can no longer see their students. The first educational computers had tiny, 10-inch screens, which progressed to 12 inches, then to 13 inches and to 15 inches. Now the standard monitors are 17 inches, and these are giving way to dual monitors or even larger screens that simply block the line of sight between student and instructor.

None of the facility-planning books on our shelves warned us of this problem. It has crept up on us through the past 10 years. While we were focused on wires, cables and routers, our classrooms were becoming less friendly despite the great technology. Let me illustrate.

A Dysfunctional Environment for Teaching

As a department chair, I assigned a not-so-tall adjunct professor to teach one evening in the computer lab. The next day she came into my office to request a different classroom -- one without computers. When I asked why, she told me she found it simply impossible to teach in the computer lab.

This was pretty discouraging because the course required computers, and we had just spent a great deal of money on top-of-the-line computer systems. I went back into the classroom to investigate and determined she was absolutely correct. Unless she was to stand on a chair, she was not going to be seen by any of her students!

Despite the thousands of dollars spent on the computer lab, we had not created a teaching environment. This is an issue that facility planners and technology coordinators are just now facing. Let me tell you why the lab was so dysfunctional.

Learning Through the Sense of Vision

Research on learning styles has shown that a large segment of our population consists of visual learners. Students (adults included) gain most of their learning through the sense of sight. Seeing the illustrations, board work, presentations and demonstrations is fundamental to good teaching and essential for most learners.

Something else to keep in mind is that educational facilities throughout the country are currently placing expensive computer projection devices in classrooms at an unprecedented rate. Some of these are going into computer classrooms where they won't be effective because the students cannot see over their monitors.

Lack of Visual Cues

Another component of the problem is the lack of visual cues, which can be critical to the teaching/learning process in an instructional setting. Body language can tell a teacher when he or she has the attention of the class or when students are restless. A puzzled look may be the teacher's only indication that a student has a question or does not understand a point.

The student also gains visual cues from the teacher. Good teachers can use a smile or a frown with more effect than an inexperienced teacher shouting to get the class's attention. Not only are some not-so-tall instructors likely to disappear behind a forest of technology, but so are some not-so-tall students. This brings me to another point.

Keeping everyone on task in the computer classroom is always a challenge. Without line-of-sight control,

it isn't too long before those hidden students are off track with a lesson. When hidden, students feel quite free to partake of the many diversions networking can provide, such as surfing the Web, playing a video game or checking e-mail. While there is some relatively pricey software to lockstep everyone through a software demonstration, it is not a total solution in itself. Being able to look a student in the eye and know he or she is paying attention is still the instructor's first line of control.

Supervising more than 20 faculty using computer labs, I also have started to hear complaints about the ability of the instructors to hear their students. What I believe is happening is that, when a student speaks, he or she is talking directly into the computer screen. The sound becomes deflected, muffled and distorted as the sound waves travel around the monitor. It is a little like trying to hold a conversation with someone who is talking with a hand over his or her mouth.