

A Poor Grade for E-learning

A Michigan State University study argues that online courses are good for teaching basic concepts, **but not complex analytical skills.**

Published in: Workforce, July 2002, p. 15

While e-learning evangelists feverishly hawk the digital classroom, HR professionals involved in corporate training are valiantly trying to figure out which teaching methods work best.

They are bombarded with claims that online classes are faster, cheaper, and more productive than traditional instruction. They pay attention when Cisco CEO and high-tech visionary John Chambers declares that education is the “Internet’s next big killer application.”

At the same time—and with far less fanfare—researchers at Michigan State University released a study in March that shows, in fact, **that on-site employee education programs offer “significantly” better results than online training programs.**

Economics professors Carl Liedholm and Byron Brown found that students in a virtual economics-learning program fared far worse on examinations than their counterparts who took the same course in live classrooms. **Online courses are fine at teaching basic concepts but aren’t effective at developing complex analytical skills.**

“I think human resources executives should be aware that there are limitations to e-learning programs,” Liedholm says. **“These classes are not the huge success stories that they’re touted to be.”** He says **employees from non-technology backgrounds who are more accustomed to face-to-face interaction have the biggest problem with online training classes.** “They’re used to classroom experience in high school and college, where they absorb material in a more hands-on way. That’s what you’re missing in an e-learning environment.”

The study featured a full menu of online learning tools and activities, including streaming video of classroom lectures with synchronous viewing of texts, enabling online students to see and hear the same lectures as students in the actual classroom. Participants were tested on 37 questions related to the subject material. “Students in the classroom did significantly better than the online students on the most complex material,” Brown says. What’s more, he observes, under-performing cyber-trained students had significantly higher scores on comprehensive tests and had completed more credits toward graduation than the students in the classroom sections.

While the study is an eye-opener for human resource executives and corporate trainers, the researchers aren’t suggesting that online training programs be scrapped. “If you have an imaginative course leader who can overcome the lack of live interaction, that could close the gap,” Liedholm says. **“The key is motivating students.** By and large, **live classroom environments seem to do a better job of keeping students focused.”**

Depth and detail of learning material is vital to a successful program, the economists say. Human resource managers who are considering online training should make sure that the class covers more than just the basics—an ongoing concern in corporate e-learning environments where students often lose interest. “We found that on-site students spent more time on the course than their virtual-class counterparts,” Liedholm says. “So it is possible that this added effort contributed to their superior performance on problems requiring in-depth analysis.”

As an interesting aside to the study, the researchers found that female students performed better with online training. “Women were at a significant disadvantage in the live sections of the course, where they scored almost 6 percentage points lower than male students,” Brown says. The reasons for that aren’t yet known.