

Is Multimedia Worth the Money?

WHO HASN'T ASKED that question about multimedia? Three case studies reveal that it saves time and money in the long run.

The total cost of a training program is equal to the combined costs of development and delivery. Multimedia training tends to cost more for development (for the hardware, software, and other technology) and less for delivery because the training can be delivered simultaneously to a large audience at multiple sites. Instructor-led training tends to cost less for development (most classroom training involves relatively inexpensive materials) and more for delivery due to travel expenses and time away from work for trainees and instructors. In the case studies, multimedia training was consistently less expensive over the long run than instructor-led training.

As for time savings, every organization reported that multimedia training was faster than instructor-led training—from 20 to 80 percent faster, with an average 50 percent reduction in training time. They cited such reasons as a tighter instructional design and trainees' option to bypass content they didn't need.

Case study 1. Storage Technology manufactures hardware for mainframe computers and employs 1,500 technicians. In the past, the company trained technicians on new equipment by bringing them to headquarters in Colorado for four to 10 days to attend classroom lectures and to practice diagnostic and repair procedures on the actual equipment in a lab.

Now, a multimedia program provides a full simulation of new equipment on dedicated (meaning, for the purpose of training only) computers located in the company's field offices across the United States. Technicians can view maintenance panels, run diagnostics, spot failures, click on pictures of replaceable parts, and convey parts on-screen to the appropriate locations for simulated repairs.

The savings have been substantial, says Stephen Ball, director of training, due to less training time and reduced travel expenses. Figure 1

compares the total training costs over three years for one program—about \$2 million for the lecture-lab format and a little more than \$1 million for the multimedia version. Ball says that the multimedia training has also saved the company an average of 12.5 "person years" per course. In other words, over the lifetime of a course, it would take 12.5 more years to train people if the training were delivered via instructor. On a smaller scale, for example, the hours of one lecture-lab course (28 hours for four days of training) were reduced to 11.2 hours—a 40 percent reduction.

"One early mistake was giving senior managers too much financial information," says Ball. "It confounded them. I recommend presenting an overview and only the numbers that are relevant to the par-

■ *Organizations reported that multimedia training was faster than instructor-led training* ■

ticular audience. Focus on the highlights: Here's the overall investment; here are the projected savings over three years.

"Still, you need a champion among management, not just a supporter. A champion touts the benefits of multimedia; a supporter simply says OK. There's a huge difference. Also, be sure you conduct ongoing marketing. I didn't, and we suffered, even though we were saving the company money."

Case study 2. Commonwealth Bank is one of the largest banks in Australia, with 1,500 branch offices and 36,000 employees scattered throughout the country, including many rural locations. The bank provides employee training in such topics as orientation, leadership, and teller procedures.

In 1987, Commonwealth Bank

introduced computer-based training by purchasing 1,200 PCs for all its branch locations. At first, the PCs weren't networked. So, training managers updated courses monthly via diskette as the bank experienced changes in procedures and products.

When the computers required upgrading, Bob Spence, senior manager for the initial CBT effort, knew that he'd have to build a business case that included a cost-benefit analysis. He wanted to demonstrate the financial benefits of multimedia, win management's support, and show that *not* training would be more expensive in the long run than training.

To build his case, Spence had to provide the following information:

- ▶ the number of trainees attending courses
- ▶ the number and cost of training locations
- ▶ the number of instructors, plus recruitment and salary costs
- ▶ the cost of the training equipment
- ▶ the duration of courses
- ▶ the cost of travel and living expenses for instructors and trainees.

The financial analysis also included capital expenditures; a consumer-price-index forecast; equipment-depreciation rates; tax rates; and the costs of courseware development, staffing, and other operations. The business case also pointed to several qualitative arguments about multimedia, including its demonstrated effectiveness, favorable trainee evaluations, savings in training time, and capability to track trainees' progress and training history. Ultimately, management approved the PC upgrades for multimedia capability, including sound and CD-ROM.

Case study 3. Octel Communications, a provider of voice-mail equipment, asked its training department to find the most cost-effective way to deliver certification training to technical-support workers, both Octel employees and independent distributors located throughout the United States and Canada. The initial target audience was 490 people. But eventually, 1,000 people would need training.

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Project manager Jane Fleming considered three course options: instructor-led, video teleconferencing, and multimedia. Multimedia proved to be the most cost-effective mainly because people could be trained faster and on-site, thus eliminating travel expenses and downtime. Multimedia also met Octel's strategic goal to move training to participants' desktops. (See figure 2.)

So, can multimedia save your organization money? It can—if the training audience is large enough to offset the high cost of development and if you use off-the-shelf programs instead of developing your own.

Technology-based training and performance support are here to stay, and their effect on our field will

continue to grow. In future columns, I hope to provide you with information that will help you make informed decisions about initiating or expanding the use of technology in your own organization. I also welcome your questions, comments, and learning experiences.

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Figure 1: Comparing Costs

Here's a comparison of costs for a training program using a lecture-lab format versus multimedia delivery during a three-year period at Storage Technology.

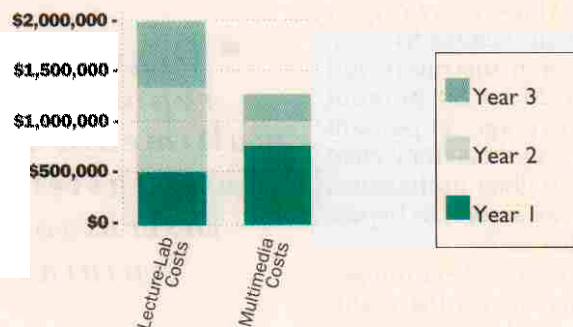


Figure 2: Three Options

The figure compares the return-on-investment for three training approaches for the same course, with different-sized training audiences. ROI is based on the projected revenue for the course, less the total cost of development and delivery.

