Training success relies on presentation, instructor ability, and good course design.

Harnessing the Virtual Classroom

TOOLS such as Live Meeting, Centra, and Elluminate, coupled with growing broadband Internet access, are revolutionizing the world of distance learning. New synchronous e-learning environments support projection of still, animated, and video images; instructor-participant audio; sharing of desk-top applications; and interactions using instant polling, chat, and whiteboard marking tools.

According to the Gartner research service, in 2003 the virtual classroom collaboration software market grew by 19.7 percent to reach more than $507 million in new license sales worldwide, which marked three consecutive years of growth. What is the reason for this growth? In most cases, it's cost savings. Why spend travel money on a face-to-face event if your goals can be achieved virtually? But cost savings can be misleading if your virtual classroom events do not harness the software features in ways that support your instructional goals.

What are the best practices for harnessing these powerful new training delivery tools? What can we learn from early adopters as well as from research on instructional methods that are proven to facilitate learning? I polled some clients and colleagues as well as reviewed recent research for lessons learned.

Blend the virtual classroom

Many organizations are packaging the virtual classroom as one element of a larger program that incorporates various delivery media. For example at Intuit, maker of personal and small business accounting software including Quicken, TurboTax, and Quickbooks, initial training of new distributors is held in face-to-face settings.

Trudie Folsom, senior instructional de-signer at Intuit says, "We use instructor-led training (ILT) for the brand new channel members as a way to introduce ourselves in person, provide an opportunity to network, and introduce them to our software." Intuit capitalizes on the high social presence of the physical classroom environment to establish new relationships. The face-to-face training is followed by virtual classroom training using WebDemo by Linktivity in which learners use application sharing for software training. They also use the virtual classroom for monthly meetings with their channel partners, for short classes on special software features, for sales demonstrations, and for troubleshooting using the application-sharing features.

David Holcombe, president and CEO of the eLearning Guild, found that for his company's needs, Elluminate offered the best system. "For us, cross-platform application, high-quality VoIP, and stellar sup-

By Ruth Colvin Clark

port were critical. The system offered by Elluminate met these needs," he says. The eLearning Guild tried conducting live simultaneous online broadcasts of live face-to-face events. This type of blend did not work well, however, because "the challenges of managing the technology, the speakers, and the expectations of both a live audience and an online audience at the same time did not enable us to deliver the level of quality our customers expect." Now eLearning Guild regularly conducts one-day online forums that include three sessions as well as monthly online research briefings using the virtual classroom.

NIL, a Cisco Global partner located in Europe, blended the virtual classroom with remote labs for its four-week ILT Cisco Certification course. This offering gave the company a good opportunity to compare results from its regular face-to-face courses with virtual classroom delivery. Marjan Bradesko, a senior advisor of learning solutions, summarized the NIL experience, using Microsoft Live Meeting to deliver the class in two three-week sections of virtual classroom training. Participants attended 3 to 4 hours of virtual classroom training daily followed by asynchronous project work using the NIL remote lab facilities. NIL found that student satisfaction ratings and learning outcomes were equivalent to those in a traditional ILT class. This program resulted in enormous cost savings since travel expenses were zero and time away from the job was minimal—in part because a portion of the virtual classroom was delivered outside of office hours.

Keep it brief

Although NIL did have a successful lengthy class that relied on 3 to 4 hour virtual classroom sessions, students reported that daily virtual sessions of that length were too long. In general, online sessions should be limited to about 60 to 90 minutes in length. You can get more mileage out of multiple virtual class sessions by assigning asynchronous project work between classes. For example, Clark Training offers a four-session virtual class. Each virtual session is scheduled weekly and lasts about 1.5 hours. Between sessions, participants complete projects that they post for review by other class participants and the instructor. Participants have the option of signing up to audit the class and thus bypassing projects or selecting a certificate version, which requires project completion.

Four routes to engagement

With a more limited social environment than the conventional classroom, it's important to keep participants engaged in any form of e-learning: synchronous or asynchronous. It's not unusual to find that participants in non-interactive virtual classroom sessions are multi-tasking, for example working on email or completing work assignments. In some cases, they may have even left their computers! Fortunately the virtual classroom software gives instructors many opportunities to keep learners engaged. It's up to the instructor to use these features effectively and often. I recommend heavy use of a combination of the following engagement routes.

Route 1: Maintain a lively pace. In our virtual classroom programs, our slide ratios are about .66 slides per minute. That means that for a one-hour program, we project about 40 to 45 slides. Of course we spend more time on some slides than on others. But the basic goal is to keep the program moving to sustain learner attention and interest. If you are regularly spending between two and four minutes explaining a slide, chances are you are losing your audience. Since the amount you should display on a single slide is limited to maintain good visibility, you are better off using several slides to convey each topic.

Route 2: Visualize your content. In e-learning—either synchronous or asynchronous—the largest portion of the screen real estate is available for visuals. In the virtual classroom, most participants project PowerPoint slides on the whiteboard, and the instructor uses the audio facility to explain the slides. In visual-dominant media, including the virtual classroom, avoid a "wall of words" text-heavy approach in favor of relevant and engaging visuals. According to several research studies in 2003 and 2004, learning can be improved by 89 percent when a relevant visual is added to text. In addition, when the visuals are complex, such as in an animation or multi-part still graphic, you get best learning by explaining the visuals with instructor narration rather than by text, according to a Clark and Richard Mayer 2003 study titled "E-Learning and the Science of Instruction."

Route 3: Incorporate frequent participant responses. Make heavy use of the response facilities in the virtual classroom. Your participants should be actively responding with various tool features every two to three minutes. Rely on the response options that maximize audience participation. For example, all attendees can respond to polling questions, type into the direct message window, and (if the number of participants is not too large) type on or mark up the white board.

Route 4: Use small group breakout rooms. Another approach to maximizing everyone's participation is to use breakout rooms for small group discussions and projects. When you assign participants to a breakout room, each group has all of the same tool options as those available in the main room, so they can talk in a smaller setting and use the whiteboard to record ideas and results. The break-out room is most successful when small groups work on a relatively

structured assignment within a given timeframe. As an example, we give our class a brief summary of learning goals and break them into small groups to create a blended learning plan by assigning different goals to self-study, virtual classroom, or ILT delivery media. Each group has about 10 to 12 minutes to discuss the case study and record their results. A group spokesperson summarizes each group's ideas when all participants return to the main room.

Virtual classroom challenges

The early virtual classroom adopters I queried pointed to two main start-up challenges related to technology and instructors. Both Intel and NIL—companies that serve international audiences—pointed to unevenness in communication technologies in various countries. But you don't need to leave the United States to encounter technological challenges. I've found that delivering webinars from a satellite-supported system can lead to very unreliable results depending on weather conditions. In one situation, I had to rely on a hard line phone bridge and ask my co-presenters working on cable to show multimedia. In other cases, the satellite went down altogether in the middle of a session.

Lesson learned: Stick with reliable high bandwidth communication technology and always have a contingency plan for technical problems. Alternatively, when working with International audiences, design your sessions to accommodate sites that may lack the level of connectivity needed for features such as audio or multimedia projections.

All respondents to my poll mentioned challenges in getting instructors to effectively harness the features of the virtual classroom. According to Holcombe, "Our greatest challenge has been getting the speakers up to speed in the environment. We actually have to employ a speaker coach who works with all our speakers prior to their presentations! We've had many speakers who are well known guru types have a difficult time in the online environment because they are not familiar with teaching or speaking in this way."

Bradesko adds, "The differences in the virtual classroom compared to ILT were so significant that every instructor (experienced or inexperienced) had problems adjusting to the virtual classroom environment. The biggest challenge was to prepare the instructors for the virtual classroom delivery."

Bob Mosher, director of learning and strategy evangelism for Microsoft says it best: "I almost don't like the name 'virtual classroom' only because there is a past mindset that comes with the word *classroom*

that the virtual world just doesn't match up with. That's not to say that it's worse or better. It's just different. Calling it a 'classroom' brings back a set of expectations and outcomes that are just different in this domain."

Some organizations offer the support of a producer to work with their speakers. A producer is someone conversant with the technology who can work with speakers ahead of time and co-facilitate during the session. This is especially helpful when virtual classroom instructors are guest speakers.

Increasingly organizations are recognizing the need to provide their virtual classroom instructors with specialized training that goes beyond the mechanics of how to use the tool.

The bottom line

The eLearning Guild has been offering virtual classroom sessions for two years now with great success. They report that "The highest measure of success in this area is customer retention. Our return participant rates on our online events are very high. We know that participation in online events saves our members money they would otherwise need to send people to face-to-face conferences, which are much more expensive."

Likewise Bradesko concludes, "When properly positioned with short self-contained sessions with follow-up activities, the virtual classroom proved to be very effective and easy to implement. But still the interest for classical classroom training (ILT) far outweighs the virtual classroom requests, especially for standard courses lasting more than half a day." Karin Hoffee, Rene Smith, and Tami Hobbs, of Intel University, tell us that "In general, participants like the virtual classroom. With an effective instructor and good course design, distance learning can be effective and engaging. Many instructors like teaching in this environment."

As with any new delivery medium, when used appropriately, the virtual classroom offers a cost-effective alternative to incorporate into your blended learning solution. **TD**

Ruth Colvin Clark is president of Clark Training and Consulting in Cortez, Colorado; ruth@clarktraining.com.

A virtual classroom is an online learning environment that allows for live interaction between the tutor and the learners. Check out our blog article and learn more about the benefits of using the virtual classroom in your teaching practice. Some of them relate the virtual classroom to course materials, homework, tests, and assignments that are typically used in self-paced (asynchronous) learning. However, all of these activities are external to the classroom experience. That is why the definition of a virtual classroom should be related to synchronous online learning, which happens in real time and provides the participants with an experience very close to traditional face-to-face teaching. Here is our understanding of what a virtual classroom is: What is Virtual classroom. Harnessing the Virtual Classroom. By Ruth Clark. 0. Many organizations are packaging the virtual. You've reached ATD member-only content. Sign in below or join ATD to continue. A virtual classroom is a software-based teaching and learning environment that mimics the qualities of face-to-face classroom instruction. Teachers and learners can participate in live online classes, communicate with each other, hold discussions and watch videos or presentations, among other features. Much like in a physical classroom or training session, a whiteboard serves as the organizing feature. Virtual classrooms connect learners and instructors from across the globe, making education and training vastly more accessible, as anyone can receive the benefit of high-quality instruction with little more than a device, an Internet connection, and a set of user credentials. Costs can also be reduced dramatically, as there is no need for transportation. Virtual reality (VR) has potential to transform learning beyond the traditional classroom or online learning experience. Learn about the best VR educational apps at the forefront of this classroom revolution. You can create specialized lessons with custom virtual objects which improve learning retention and class interaction. You can also record your live lessons, where you can review and share it privately with other users in your virtual room or upload it to the Engage platform for the anyone to replay it anywhere at any time. Cospaces (Creation & Building). Cospaces lets children create their own VR space.