INTRODUCTION

Online learning is taking part in one of the greatest instructional transformations since mass public education was introduced in America in the 1880s. Traditional classroom settings now contend with the implementation of asynchronous (online, self-directed) and, even more recently, synchronous (online, real-time) environments. These uses of technology challenge our historical instructional models, raising many questions about how to appropriately integrate such processes into business and educational instruction.

Distance education research has generally focused on the technological aspects of instruction—does a specific medium help or hinder learning? However, recent research indicates that quality of learning depends upon the design of instruction rather than delivery media, and that information transfer and retention is most strongly impacted by the frequency and quality of learner-centered practice activities (Clarke, 1994; Jones, Valdez, Nowakowski, & Rasmussen, 1994). Researchers strongly agree on the importance of engaged, collaborative learning in schools and business classroom settings. How instructional content is prepared to support engagement, how person-to-person interactions are arranged, and how the complete learning environment matches learner needs are now considered key issues in the creation of successful online instructional design.

Instructor interest in interactivity and engagement as practiced in the live online setting is rapidly increasing as more and more organizations consider this medium for education and communication. Real-time, instructor-led e-learning design and delivery leverages the Internet to improve training efficiency and effectiveness, combining the best of in-person interaction with the dynamics of the Web. Instructors actively...
request information and techniques to help them adapt to this new live online environment. Comfortable with face-to-face techniques, they now want to facilitate shared engagement between the student and technology, the student and instructor, and the student with other students.

Based on interviews conducted with an international set of experienced synchronous (online, live) instructors, eight best-practice guidelines—considered essential for fostering successful live e-learning instruction—were identified (Barclay, 2001). Assembled from summaries of knowledge, skills, attitudinal aspects, and practices, the following guidelines provide motivated trainers with a theoretical foundation and yet practical set of techniques to support collaborative synchronous e-learning instruction.

**MASTER THE TECHNOLOGY**

Technology issues are a primary barrier to the implementation of a successful live e-learning environment. The challenges of teaching have always included understanding instructional processes and specific content, but now an instructor must concurrently understand and operate a technologically complex online software application. To become a successful synchronous instructor, technology should be positively and energetically embraced. This translates into mastering the hardware and software use through extensive practice. The goal of the instructor is to move participants in a synchronous session past being fascinated by the technology and tools toward attentive participation in the learning experience.

Techniques instructors may use to overcome the technology barrier include:

- Selecting only a few of the application’s tools to start with and then adding in others as experience with that interface grows
- Accessing instructor and student coaching or training options to learn how to effectively design for and instruct in the media
- Accessing technical support before, during, and after a session to ensure a positive rather than negative online experience for all
- Holding a short test session to help the learner overcome possible technophobia
- Paying attention to technology factors, such as having fast keyboarding skills or a feel for bandwidth speed, that help provide a comfortable environment for the learner
- Knowing how to overcome any technical problems that arise
- Knowing when and how to blend online training with face-to-face and self-directed study to provide an optimum learning experience

Acquiring a base foundation in understanding the technology and extensively practicing with technological components will yield higher levels of trainer comfort and confidence when instructing in the synchronous environment. The key message is to become as familiar with hardware and software tools as when operating a slide or overhead projector. Moving past the technology to develop the human connection is paramount for learning success.

**EXPERIENCE THE ONLINE ENVIRONMENT**

Closely associated with mastering the technology is the provision that a successful instructor must have personal experience with the online environment. Instructors realize they are no longer physically standing in front of a class full of people with whom they have eye contact and can read body language. Software tools should