



Using Simulations as Part of a Blended Training Strategy

Training professionals have a wide set of training approaches from which to choose, including simulations and other e-learning, facilitator-led training (both classroom and virtual), performance support tools, and knowledge management systems. A growing body of research indicates that a combination of these approaches yields more lasting improvement than any one by itself.

Simulation-based training is just hitting the mainstream, so there's still a learning curve involved in integrating simulations with other forms of training. Adding to the challenge, simulations tend to be self-contained worlds, so it isn't always clear how to integrate them. Nonetheless, simulations can serve an invaluable role in a comprehensive training strategy, addressing needs that other approaches can't meet, and making other approaches more impactful. Here's how.

Roles for the Various Components

Each training approach has different strengths and weaknesses. In exploring ways they might be combined, it's helpful to first explore the roles each can play.

Most training approaches fall into one of six general categories:



The boundaries between these categories are sometimes fuzzy, and many approaches don't fit neatly into just one. However, categorizing this way makes it easier to

explore how different approaches can be integrated with one another.

Simulation-based training, which encompass both "static" simulations that mimic a process, system, or device, and "role play" simulations that enable learners to execute a task within a virtual world, is ideally suited to enabling learners to *practice applying their skills and knowledge in a real-world context*. The only way to really learn how to do something is to do it, and simulations provide a risk-free experimentation space to accomplish just that.

Facilitator-led training, including both traditional classroom training and virtual classrooms achieved via synchronous web hosting facilities, has an important role to play, too. *It brings learners together to interact and socialize*. Man is innately social, and facilitator-led training leverages that: it enables learners to interact with other people (and in some corporate cultures, to network), to engage in discussion, and to ask questions. Facilitator-led training is ideally suited to allowing people to get together to trade ideas and questions.

Other forms of e-learning besides simulations can also fill a niche. On-line courses are now a ubiquitous training element at most large and medium-sized corporations, with thousands of courses available off the shelf and more coming on-line every day. Much of this online learning is in the form of web presentations, characterized by training delivered largely one-way, to the user, via text, graphics, animations, and multimedia. Learners go to a site and read, watch, and listen. Into this category go the billion-odd pages of information scattered on websites all over the world, which in many cultures have replaced the book or binder as the ubiquitous training companion. Such an approach is best used to *deliver information* to users, to

present topics and give learners a grounding in a given subject area. For many subjects, simulations are overkill -- one doesn't need a simulation (or a class) to learn about the 1938 World Series, to catch up with the news, or to be given a briefing on a new product. Presentations tend to be less expensive to build and maintain than are other approaches, which is another factor to consider in their use.

Knowledge management systems, defined here as systems whose main purpose is to archive and retrieve processes, techniques, insights, case studies, and similar expert knowledge gleaned from personal experiences, are becoming more widespread as companies seek to capture the collective expertise of their veterans before they retire. These systems are ideally suited to *collecting and disseminating stories, advice, and insight*, which can add color and detail to the training offered in the other approaches.

Systems which *help users complete a task via just-in-time instruction*, generally called **performance support tools**, are unparalleled in improving workplace performance. Consider the improvement in text that has come from spell checkers, and the reduced learning curve rendered by on-line help pages. In some instances, performance support systems have made formal training unnecessary. Many tasks, however, such as selling and coaching, are complex enough that performance support tools by themselves aren't feasible. The knowledge must be internalized. In some instances, learning how to use the performance support tool is itself a challenge. Hence, performance support tools are strengthened by a mix of other approaches.

The final approach outlined here is a loose collection of components and capabilities that are often either part of other approaches, or not considered a training approach at all. In this category fall chatrooms, newsgroups, e-mail discussions, instant messengers, and other forms of **electronic communication between learners and teachers**. Like facilitator-led training, these technologies *bring people together*, enabling them to ask questions, trade ideas, and bond together. Unlike facilitator-led instructions, they are *unstructured, organic, and user-driven*, allowing

learners to tailor them to their particular learning needs. And, they're often *asynchronous*, making them convenient.

Blending Simulations and Classroom Instruction

Facilitator-led training brings people together to discuss ideas and trade stories, while simulations give them a chance to independently experience new phenomena and to practice their skills in a real-world context. They're a match made in heaven.



For example, a course can be structured so that learners first work through a simulation-based training component designed to give them a common set of experiences and a practical knowledge of the subject matter. This brings all learners up to a baseline of knowledge, which facilitator-led training can then build upon, for example, with discussions around particular situations and with the instructor sharing stories from his/her experience with similar situations.

One of the virtues of combining simulations and classroom training is that each leverages the other. First, the simulation-based component raises questions in the learners' minds, which can then be answered in class. Second, the classroom component provides a useful debrief, allowing learners to abstract away from the details of their particular experience with the simulation and remember the underlying principles -- to see the forest instead of just the trees, so to speak.



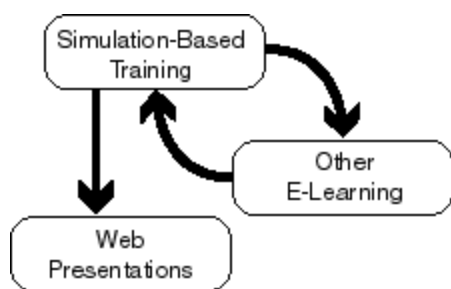
Alternatively (or in addition), facilitator-led training can set the stage for simulation-based training. For example, a simulation-based assessment might be added to the end of a facilitator-led session to ensure that learners can apply the lessons in a real-world way. Or, the simulation can provide learners with a chance to exercise their new-found skills, as

for example when flying lessons are followed by time in a simulated cockpit.

A third variation on combining simulation-based and facilitator-led training is to interleave them. Learners can work through a simulation to gain a baseline understanding, attend facilitator-led workshops to get human feedback and to trade stories, then return to simulations to apply their knowledge, go back to the classroom for more training, and so on until all of the skills and concepts are mastered. Or, as is done in many business schools, multi-user simulations can even be brought into the classroom, to enable the facilitator to frequently intervene, say to point things out or to provide insight into a situation.

Blending Simulation-Based Training with Other Forms of E-Learning

Simulations give people a chance to apply concepts to real-world tasks. But what if they come in without any concepts -- if they're entirely new to an area of endeavor? In these instances, it's helpful to put learners through an e-learning orientation that provides an introduction and overview to the subject matter, before setting them loose in a simulation.



Simulations are increasingly web-based, so it can work the other way: as learners complete a simulated task (or, right after they complete it), the coaching they receive can contain links to other e-learning offerings. In a sales simulation, for example, a learner who failed to identify a customer's real need might be motivated to browse through an internet site containing stories from top salesmen in the company or a primer on asking questions.

A learner's performance in a simulation can also be used as a basis for mandating follow-up in a non-simulation-based e-learning course, say to address particular skill gaps. For example, learners who demonstrated an inability to communicate their vision to the team in a leadership simulation might be directed to an e-learning course on effective communication.

Similarly, a traditional e-learning course could be strengthened by adding simulations to specific sections or elements of the subject matter. An e-learning course on hiring for diversity, for example, might give learners a periodic chance to interview simulated characters and make recommendations on whether they should be hired.

Blending Simulations with Performance Support Tools

Because performance support tools support users in the completion of a task, they're a natural fit with simulation-based training, which gives learners a chance to work through a task without real-world consequences, under the helpful eye of a coach.



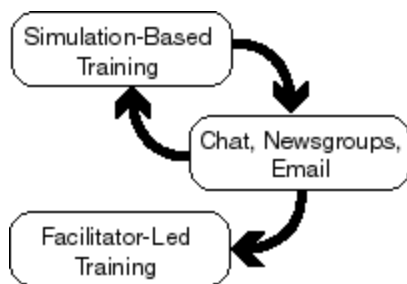
Suppose, for example, that a company has developed a performance support tool designed to help people master a new on-line order entry system. Rather than simply introduce the tool to people trying to enter an order, it may be more beneficial if the company develops a simulation to give learners practice entering fictitious orders under the direction of the tool. This means less business risk (such as someone entering an order wrong), and takes away the stress that surrounds mistakes in the real world.

Such blending can be as simple as allowing learners to use a job aid while completing a task, for example, giving learners a coaching

checklist they can use to offer coaching to a simulated character.

Blending Simulations and A Chatroom

One of the liabilities of most simulation-based training is that learners work in isolation, without opportunities to trade secrets, share ideas, and discuss their experience in the simulation. This is where instant messaging, newsgroups, and other unmoderated forums can play a key role.



For example, learners in a business course might work through a simulation, and as they do so communicate with one another via a chatroom. This enables them to learn from each other as well as from the coaching in the simulation.

Alternatively, a simulation can provide the capability for learners to send questions to an expert, and receive helpful advice relevant to the completion of the task. For example, learners working through a series of project management simulations might post questions about challenges they faced to a newsgroup or expert board.

One approach that has a lot of potential is to combine simulations and chat with a facilitator-led follow-up. Here, learners would work through a simulation, and be able to converse with one another via an on-line newsgroup. Archives of the newsgroup would be kept. Periodically, an instructor could look over the discussions, and organize classes around hot topics or particular insights raised by participants. Thus, an instructor would use data to come up with topics that are of maximum interest to the target audience.

Only the Beginning

Clearly, these suggestions only scratch the surface of what is possible, as instructional designers find ever more ingenious methods of mixing various approaches to glean maximum utility out of each. One thing from these examples is certain: combining simulations with other forms of training can open up new vistas of performance improvement.

Done right, the whole is greater than the sum of its parts.