

Using Simulations in Corporate Training

Corporate Learning and Development

February – 2011



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Why Use Simulations?

In this series, we will look at the use of simulations in effective training interventions. First, let's find out why an organization would want to use simulations in its training program.

In the past, the mention of training simulations brought pictures of high-tech cockpit mock-ups and controlled burning buildings to mind. But in today's environment, a training simulation can occur in a classroom or online with just about any line of professionals. We know that simulations in highly technical or dangerous situations are necessities, but why should we consider using simulations in various aspects of business training, such as strategy, operations, or even leadership? The answers are fairly simple, so in this series we will discuss simulations and how you can effectively implement them in your organizations.

One of the key outcomes of a business simulation is the aspect of execution. Many times, even in our own professional lives, we find that knowledge is fantastic but that execution and application of knowledge is a little further out of reach. Up-and-coming executives can be trained in the classroom and even on the job, but their ability to execute complex strategies is a muscle that isn't often tested. Consider the fact that trainees can make decisions and see their outcomes in a controlled environment, for just about any type of situation your organization may face. If the execution is not quite right, trainees can go back and try again, which is most often impossible in the real world.

Another reason to use simulations in your organization is to help people learn about new processes and new strategies, as well as to help them understand what their goals and objectives really are. If your organization is changing direction, as many have during uncertain economic conditions, a simulation can help personnel move through the change virtually – and in far less time than in real life. A two day simulation can encompass two years on the job, and, as we've already discussed, the environment is controlled and outcomes are simply there for learning.

In terms of strategy, consider an organization that has acquired or been acquired. The cultural and operational perspectives of a consolidation are quite large and the organization could take years to adjust to the change. Why not use a simulation that includes cultural and operational aspects in order to accurately portray what life will be like after the change? Not only can a simulation like this teach new employees how and why the organization makes decisions, but it can also bring them closer to the overall cultural goal much sooner than you might expect. Trainees can examine their decision making skills, operational knowledge, and even leadership qualities during a well-planned simulation.

Another reason to use simulations is the team-building aspect, especially with new teams or organizations. As group members begin to deal with a real-life situation right away, they are able to learn about their team members' strengths and opportunities and work together for a common goal. Imagine consolidating the "storming" phase of team development into a few days or weeks, versus a few years. And, as we've seen recently, organizations must be able to turn quickly and without much fuss if they want to stay competitive.

Speaking purely in financial or economic terms, simulations can help decision-makers deal with the results of their choices without actually spending any physical cash. This is again an example of where knowledge works but applying it in controlled situations works even better. For example, if a team needs to determine the best way to create efficiencies and cut costs, why not run the process as a training simulation first? This way, the team can actually visualize their decisions and determine potential paths before any decisions are made in real-time. If the simulation is controlled, team members can go through

exercises that they may not go through if they are faced with a decision in the real world – or that they may not take enough time to discuss before moving forward in that real world.

So it's time to move simulations from the cockpit and out of burning buildings – and into board rooms and training rooms in a multitude of businesses and organizations. Next, we will discuss the components of effective simulations.

Simulation Benefits

We've discussed some good reasons to implement simulations in your organization. Let's take a look at the distinct advantages of simulations over other types of training interventions.

When you take the time to consider the methods for implementing a simulation, such as online, written, gaming, group participation, or individual, it's easy to see that simulations can fit with any type of program. But it's also a good idea to think about the specific benefits and advantages of simulations, especially if you are going to have to justify an increase in cost or time for an overall training program.

First, participants in a simulation are able to learn through performing an action in order to get to a certain outcome. In regular training interventions, and in the overall intervention to which the simulation belongs, we are governed by the outcomes. But the outcome from a simulation is one that comes from experience and not just reading, discussion, and testing. One of the essential bases of adult learning theory is the experiential component, so we know that adults learn better through experience. On top of this, retention of knowledge and its applications is higher with experience.

Next, the mistakes participants make in a simulation, no matter if it's a case study or a complex flight simulator, are truly learning experiences. In other words, the outcome is not damaging to the organization, its equipment, or its personnel. Consider high-level executive decision makers. If this group can participate in simulations that are modeled after real-world issues, it can be free to make mistakes, learn from them, and apply the learning before going out to the real world. The organization will have to do less cleanup if mistakes are made in a simulation environment.

The simulation environment also provides the benefit of consistent, constant, and immediate feedback. If the simulation is designed to offer feedback at various points throughout the timeline, participants can take the feedback, make corrections, and move forward. Plus, if they have truly made costly mistakes, the immediate feedback helps them right away and not when it's too late. The best part of immediate feedback is that it leads to immediate application of knowledge. Application is, like experience, a major component of effective adult learning.

On the lighter side, a well-designed simulation can be an enjoyable, exciting experience for both the participants and the moderator. This benefit essentially serves two purposes. First, you can use the enjoyable application of knowledge as a marketing and promotional tool for the training program and the training organization. Consider how perception might change if potential clients are drawn to the possibility of real-world simulations in training. Second, adult learning theory also tells us that participants increase retention if they've had a good, enjoyable learning experience. As you can see, many of the benefits of simulations simply lead to better retention and application of knowledge.

If you're looking for more than the obvious benefits, take some time to move into the overall organizational realm. As your simulation begins to create "graduates," you'll also start to develop a pool of moderators or facilitators. This is not to say that your professional training staff has to move aside, but it

does add to their capabilities and coverage. Imagine the reception if a training course is taught by a professional instructor but the simulation is moderated by someone who works in the field full-time. If you do have to make a case for more money or time in training, this is a great benefit to use as a selling point.

Also on the organizational level, simulations are a useful “capstone” for overall training or certification programs. For example, a leadership development program could use the simulation as the final step to certification into the leadership or talent pool. Prospective organizational leaders will have completed a simulation that puts them on the same footing, having worked toward the same strategic outcomes. Plus, the people in the pool who have successfully completed the program will know how to apply their knowledge straight out of the gate, so the learning curve is typically less for these people than a simple promotion from within.

The benefits and advantages of using simulations cover not only participants, but also moderators, the training organization, and the organization as a whole.

Simulations in Online Learning

Simulations are also useful in online learning. Let’s look at some ways to use simulation concepts with virtual training.

Training has come a long way since the existence of only classrooms and on-the-job interventions. Online learning has changed the way we impart knowledge to participants all over the world, but it has also created some unique problems. A simulation can be part of your online learning program, so let's discuss how you can do this without running into the issues that online learning may create.

Online learning is highly effective in so many situations, especially if your target audience is spread over a wide geography. But online learning can also have the effect of putting learners out there completely alone, with no interaction with fellow learners or the facilitators. In some cases this is fine, but in some cases a simulation would be an excellent way to go against the norm of isolating learners.

First of all, consider the types of virtual interactions that may be literally at your fingertips. For example, you can utilize discussion boards, chat rooms, web and video conferencing, and even “second life” applications. Then consider your audience and your organization’s technology and choose the structure for your online simulation interventions. It does not have to be anything complex, but your program may be limited by the type of technology you can offer.

Now consider how you can use virtual simulations to reinforce learning. You may want to offer the simulation as part of an overall online course or for participants who are returning to the office from a classroom intervention. Either way, the focus of using a simulation in online learning is to continue the knowledge process and to continue application of that knowledge. Alternatively, you can use the online simulation as the learning experience itself.

One way to create an online simulation is through games and live interactions in a team environment. People play games online, via Wii, and on Xbox in teams regularly. Why not capitalize on this concept in training? The simulation case can be handed to teams, and then they can begin to formulate their strategies, choices, and decisions while competing against other teams. The moderator can check in frequently to determine where the teams are and to coach virtually.

One of the lessons we've learned since the beginning of online learning is not to overuse the technology or swing completely to one side of it. For example, when online learning first became popular, some organizations attempted to move entire programs to the medium. As we discovered, this is not always a good fit, so the same rule of thumb applies for online simulations. Make sure that there's a balance. One way to balance is to use an online simulation as reinforcement to classroom or seminar-type training interventions. This way, when participants go back to the real world they can continue to apply the knowledge they've acquired. But the biggest consideration in using online simulations is to avoid moving interventions into the online environment when they should be live or in the classroom.

Highly complex topics or issues, such as leadership or cultural simulations, may need to stay in the classroom or boardroom to encourage face-to-face interaction and networking. On the other hand, concepts that can be reinforced through social media can move to the online environment. Many times topics that require business savvy or acumen or even financial issues are well-suited for online simulations. The interaction does not necessarily have to be live in these cases. In addition, the overall culture of the organization may dictate what moves into the virtual world and what does not. For instance, if your organization is highly technical and well-connected through social media, then you may have more leeway to move simulations into the online environment, especially if participants are accustomed to online interaction as part of their everyday lives.

Now that we've discussed the uses of simulations and their application to online interventions, let's look at how to truly put simulations to work for your organization.

Simulation Components

Now that you've decided to use simulations in training interventions, let's look at some of the components of successful simulations

As we've discussed, a simulation can take many forms, from real-life case studies to an engine failure on a passenger jet. But no matter what the topic, a simulation will be effective if it makes use of several important components. Let's examine those components step-by-step so that you can build effective simulations for any group or desired outcome.

First, and possibly most obvious, a simulation must be realistic. Many times, we want to accept a case study or role-play during training as a simulation. But the key aspect we want to examine is the realism of the simulation, something that is sometimes lost in cases and role-plays. A simulation must make use of current external and internal forces that will act on any decision made in real life. In fact, each simulation for each group and for each time period probably needs to be different. Are the needs of your organization the same as they were six months or a year ago? They probably are not, so your simulations should match. Be as realistic as possible in order to create the real world in a simulated and controlled environment.

Next, a simulation should create the type of competition that will occur on the job. For example, every team member in a real situation wants to be the one who comes up with the final solution. Your simulation should be built with that in mind. Along with competition, the simulation should create new thought patterns at every possible point. The idea behind the simulation is to open eyes and minds to doing things differently.

Another important simulation component is the combination of learning and dialogue that is focused on the issues at hand. For example, if the simulation is financial in nature, participants should be able to

learn the organization's financial policies, discuss them, and apply them to the eventual outcome. Also related to the learning and dialogue is the overall mission and strategy of the organization. These pieces should never be very far from a simulation. In other words, the simulation must be presented and operated within the confines of the organization's strategy and culture – and outcomes should be evaluated on their adherence to the strategy and mission.

Along those lines, remember to create outcome-driven simulations. The final result of the simulation should not be a checkmark for getting through it. Quite the opposite, the outcome of the simulation should be evaluated against the culture, mission, strategy, and goals of the organization. For example, if trainees come up with a perfectly useful solution to the simulation but bypass the organization's overall culture to create it, then the simulation should be tagged as "back to the drawing board" or at least changed to create the same outcomes within the organization's culture and values.

As the simulation is designed, remember that this is a different type of intervention from traditional training. One of the first differences is that a simulation should be driven by the participants and not by a moderator or instructor. Obviously the moderator must be in tune with timing and hours spent, but he or she should allow the participants as much leeway within those timeframes as possible to arrive at the simulation outcomes. Moderators should coach but not teach and should allow users to drive the situation.

In terms of participants or users, a simulation should be targeted and not blanketed. Just as your organization's marketing department creates target markets and segments of that target market, your simulation should also do the same. For example, a simulation for the sales force should focus on creating revenue and customer relationships; whereas a simulation for HR executives should focus on creating strategies that help personnel but work within the confines of HR law. This may seem like an obvious component, but sometimes an effective simulation carries the temptation to use it across the board.

Finally, a simulation should not only create a team environment within the classroom but should also create a network for use outside of the classroom. Simulation activities should focus on teamwork and identifying strengths for each team member. In addition, participants should understand how they communicated with each other effectively during the simulation in order to do it effectively in the real world. As each person goes back to the front lines, he or she should go with the confidence that the network is out there waiting to offer assistance and opinions.

Next, we will examine the use of simulations in online learning situations.

Simulation Evaluation

Now that you've decided to use simulations in your programs, let's look at some best practices for evaluating simulation results.

A well-designed simulation will only be effective if you are able to evaluate the results – and pass those results on to the participants. As we've discussed, immediate feedback is a benefit of simulations, so the evaluation of final outcomes should be fairly immediate so that participants can quickly apply what they've learned. Let's discuss some ways to create simulation evaluations in a way that makes them useful to both the organization and the participants.

The first step in creating effective simulation evaluations is to look closely at the delivery method. Obviously if the simulation is a complex, computer-based operation, then the programming should also deliver an evaluation in an immediate context. For example, a flight simulator will create a plane crash if the pilot has made grave mistakes. Action-based simulations, like putting out a fire or building a piece of furniture should not only be based on the quality of the final outcome but also on the time it took to reach the outcome. If the fire has been extinguished, how much time did it take and how much structural damage was done? Or, if the chair has been assembled, how long did it take and will it collapse when someone sits in it? Case study simulations should be based on the outcomes and, like all of the other simulations, on the consequences of wrong actions. We will examine this in just a moment. Finally, if a group is involved, be sure to evaluate how well the group worked together as well as the contributions of individual members.

For any simulation, whether complex or not, take the time to list the desired outcomes. For example, a financial simulation could have outcome levels, such as cash savings of \$100,000, \$75,000, and so on. An HR-based simulation could have outcomes of successfully delivering permanent pay cut notices with a minimum of attrition. No matter what the topic of the simulation, the evaluation has to start with the desired outcomes.

Reaching a successful outcome is one aspect of simulation, but participants should also know if they have taken the preferred steps for those outcomes. The preferred steps should coincide with applicable laws, natural phenomenon, organizational procedures, and even organizational culture. For instance, the HR simulation may end with a low attrition number but what happens if the participant tells simulated employees that their pay will rise back to its original point within a few months, when the cut was permanent?

Not only is it necessary to examine the preferred steps for evaluation, it is also necessary to look at the consequences for wrong actions. One way to design this part of the evaluation is through the use of a decision tree that maps out the right steps, the wrong steps, and the consequences. Consequences for wrong steps are a big part of simulation; because they help the participants learn and apply knowledge to the situation. With that in mind, remember to explain consequences in terms that are correlated with the simulation, such as lost dollars, lost time, or potential attrition rates. The ability to compare right steps with wrong steps using the same units is invaluable in application. Along these lines, though, be sure to have moderators point out correct thought processes even if the eventual step is incorrect. This may be especially true in group simulations, where some group members wanted to take the correct step or process.

Finally, create a matrix or rubric that shows the criterion for the evaluation so that it is useful to both the moderator and the participants. For example, if a participant or group chooses a right step but makes errors along the way, their partial credit should reflect this and point out what was correct in their thought processes. In addition, weights in the evaluation should coincide with weights in the real world. In other words, a loss of dollars that causes an organizational bankruptcy should be weighted much heavier than a loss of dollars that barely causes a shudder. Both are wrong, but, as in the real world, sometimes the wrong choices carry degrees of consequence. Keep in mind that choices that are contrary to organizational culture or applicable law should be heavily weighted, as well.

Here is one final tip on evaluation: if the simulation has multiple parts, be sure to create an evaluation for each part.

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