

FORCES SHAPING OUR FUTURE

ELEMENTS OF SIMULATION

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Summary

What makes a simulation a simulation? Are role playing games simulations? What about an Excel spreadsheet that has a clearly defined goal, provides feedback, and guides the learner through a series of “what if” exercises? Or, does a simulation need to include various emotional, real-world issues?

This following provides a brief checklist of the primary elements most often used to build simulations.

THE FOLLOWING are the elements of high-impact business simulations. Not all of these elements need to be present in every simulation-some simple simulations might only have two or three. Those simulations can be useful on a limited scale, but a high-impact business simulation-one that fully engages the learner-requires all of these elements.

Elements of a Simulation

Filtering-A crucial skill for success in any business is to learn to filter the torrent information we face in modern life, eliminating the noise and taking advantage of what’s important.

A simulation must develop a learner’s ability to use information wisely. That’s the real world. As with any of the elements, the details (like how many sources and types of information to incorporate) may vary, but a high-impact business simulation must require learners to filter a great deal of information in order to make their decisions.

Interruptions-In the real world, interruptions take many forms, including urgent phone calls, e-mails, or “drop ins” from co-workers. Simulations can use all of these and others to force learners to spread their focus between tasks and prioritize activities.

Goals-A high-impact business simulation must have clearly defined goals, both for the individual learners and for the entire simulation. A defined goal is a clearly obtainable target that the learner tries to hit or exceed, such as a sales target, market share, or safety rating. To become fully engaged in the simulation, it’s important the learner can define and track personal goals in addition to the ones being tracked by the simulation.

Feedback-Feedback allows us to accurately evaluate ourselves and make changes when we need to.

It challenges the learner to examine the causes-and-effects of their decisions and expands an employee’s ability to solve complex problems. Learning how to evaluate and react to feedback is a critical business skill. Incorporating several feedback elements accelerates learning and guides the learner to an expected performance target.

Exploration—In the real world, we can only make one decision at a time. We might like the chance to try different options, but by the time the results of a decision are obvious it's usually too late to try something else. Fundamental to a high-impact simulation is its ability to allow a learner to ask and answer "what if" questions. In an effective simulation learners are able to explore different options and observe how the business might react.

Collaboration—When people collaborate in teams they learn more, and they learn faster than they ever would working alone. Collaboration gives learners the chance to discuss questions and problems, and allows learners to develop new perspectives and real-world communication skills.

Even if learners work primarily on their own, there should be an opportunity to collaborate with other learners in discussion groups, debriefs, or checkpoints.

Tension—Information and events are not linear. Work and interactions are not neat and predictable. We are constantly filtering various inputs and reacting to situations. All of these factors add tension to the real world, and they explain why tension is a key part of effective simulations.

Incorporating tension into a simulation increases learner engagement and deepens the learning experience. A healthy level of tension heightens our ability to learn.

Gaming—Gaming elements provide motivation, structure, and a goal. They also create a competitive environment for learning. And a business simulation can include gaming elements without becoming a game. Including gaming elements, like scorekeeping, competition, and surprise variables can increase the entertainment value and fun of a simulation.

Acceleration—Wouldn't it be helpful if you could see into the future and evaluate the impact a decision will have on the business before you actually made it? Within a high-impact simulation, the effect of time is played out so learners may gain valuable insights into the effects of their decisions.

Coach—A good coach doesn't just tell you what to do; she helps you discover success on your own. The role of a simulation coach is to get the learners to question themselves, their ideas, their choices and their results. A high-impact business simulation should provide opportunities for a coach or facilitator to ask Socratic questions.

Model—No matter what type of simulation (one guided by a person or one guided by technology) it must have a way to judge and direct learners. In technology-based simulations, there is usually a computational engine that mathematically evaluates learners' responses. In a facilitated or human-guided simulation, a rule book or flow diagram is used to evaluate learners' responses.

In technology-based simulations, the design and sophistication of the engine is the key to the simulation's success. A simple decision engine guides a learner down a tree of predetermined outcomes. A dynamic engine has a wider variety of possible outcomes, and based on learners' responses, it can produce a wide variety of results. The most powerful engine, a responsive engine, actually evaluates the quality of thinking in learners and creates unique results for each user, based on their inputs and decisions. Unlike decision or dynamic engines, responsive engine-driven simulations will never be the same twice; each learner has a totally unique experience.

