

Learning Health and Safety Through Games

BY DAN HANNAN

One of the many benefits of games as a learning tool is that they can be used just about anywhere — from a formal classroom to a job-site construction trailer.

A well-constructed and implemented game offers an effective means of communicating information and having fun at the same time. No matter how complex the content, games are a seriously engaging way to get learners up to speed on any type of content. After all, the more critical the information — and all safety training is critical — the more important it is that learners remember the content. Whether introducing material to new hires or refreshing veterans on regulatory information, games are an entertaining, effective and memorable addition to learning and development.

Shell Oil performs oil and gas exploration and production in remote locations throughout the world. These activities are inherently dangerous, with physical, mechanical and chemical hazards around every corner. The need to keep Shell's employees, and the contractors it hires, safe is paramount to its success.

Safety training is therefore a staple in many phases of its operations and is required for new-employee orientation. It's also implemented periodically as a refresher and as corporate policies and procedures change. To improve upon the effectiveness of training and to achieve desired safety outcomes, Shell decided to introduce gaming activities into its safety training curriculum.

"We were looking for a way to better engage everyone involved in our safety training sessions," said Michelle Kuck, safety specialist for Shell Exploration & Production Co. "After some research, we chose to use a computer gaming platform that allows us to blend OSHA [Occupational Safety and Health Administration] regulatory content with our own policies and procedures."

The ability of a game to be customized to address specific learning objectives is important for achiev-

ing desired outcomes. For Shell, that included the development of content related to its management of change policy — the control of transition to ensure error-free, safe continuity and compatibility.

"We desired to blend management of change, Shell's site-specific safety policies and chemical safety into one gaming activity — a very unique challenge," Kuck said.

In most instances, it is difficult to tie game-play activities, where information is reviewed to reinforce, to measurable safety outcomes (i.e., fewer injuries). Safety performance is a product of all aspects of a corporate safety program, where the whole is greater than sum of its parts. Nevertheless, it is well established that a properly constructed and administered game results in a greater retention of content. The ability to review information in an entertaining way while incorporating team-building activities is almost always a crowd pleaser.

"We got exactly what we wanted: engagement from people who typically sit back and don't participate in our training sessions," Kuck said. "With this success, we will continue to develop and refine our gaming activities to meet our training objectives for our employees and contractors."

Making Learning Fun

As any health and safety trainer will tell you, communicating information about state or federal OSHA standards is not particularly fun. The challenge for trainers is to find ways to engage learners and to maintain their interest. If learners are interested, they participate and remember the material. If the memory and experience is strong enough, behavioral change takes place: A worker uses his or her knowledge to engage mind and body, keeping him- or herself safe on the job.



Games have the power to engage learners in this way, leading to those results. It's no secret that a properly constructed and implemented game can be an effective learning tool. The concept of game-based learning has been around for years and is gaining more and more attention.

Selecting the Right Game

There are several elements to consider when selecting, constructing and using a game for training purposes. They include:

Using teams or individual participants: Team participation offers the opportunity for a collaboration of knowledge and skill sets to solve a problem. This fosters teamwork and does not alienate or single out anyone for a lack of knowledge. Teams also limit people from hiding out in the back of the room — they are accountable to their team. Be mindful to divide the group into fairly matched teams; you don't want lopsided victories. However, the advantage of one-on-one game quiz review — administered through a classroom handheld “clicker” or online via a learning management system — is that it allows for individual performance to be tracked and recorded.

Are your questions easy, hard or impossible?: The quality and level of difficulty of the content must be selected carefully. If the questions are too easy or too difficult, participants check out. It is a good practice to make sure you know a bit about those attending a training session and prepare the game accordingly. Are the participants novices or veterans in their vocations? A game that allows a progression of content from simple to difficult usually works well.

Customizing your content: Game content should reflect and support the learning objectives and the training material covered. Having the flexibility to customize game content and other aspects of game play is beneficial.

Game-play dynamics and you, the host: The host is responsible for preparing and managing game-play activities. This aspect often is overlooked and can make or break the game-play experience. A host lacking in energy and not willing to foster participation will result in a less-than-entertaining time. The host is responsible for the pace of game play, being the judge in the event of a dispute and ensuring that learning principles are reinforced (i.e., extended discussion on topics and reflection back on training completed).

Game appeal: Choose a game that will meet the needs of, and appeal to, a variety of learning styles and that requires the use of as many senses as possible. A game that demands physical activity such as writing, raising a hand or ringing a bell is a must. Offer prizes to the winners and losers.

Intent of gaming: Have a clear objective and purpose for using a game. The use of a game prior to a training session allows the instructor to gauge the knowledge base of his or her learners. The use of a game in the middle of a multiday event fosters participation. The use of a game at the end allows for an evaluation: How well did the students grasp the material, and how effective was the trainer at communicating the information? In most cases, games are used to review or refresh covered content rather than introduce a new subject.

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Self-Diagnostic: How Healthy Is Your Leadership Brand?

As you consider the opportunity to build leadership brand equity in your company, it's useful to know where to begin. Your responses to the following 11 questions will give you an idea of the current state of your leadership brand and help you decide where to begin improving it.

1. Can you describe the distinctive characteristics of the leadership of your company?
2. Would others across all levels of your company come up with a similar description?
3. Is the description generally positive?
4. Is your corporate strategy clear and understood across the organization?
5. Do leaders in your company have the attributes necessary to accomplish company strategy?
6. Is there a general, consistent quality of leadership across your organization?
7. Has your company's leadership reputation been instrumental in attracting top talent?
8. Is your overall company leadership a significant factor in retaining top talent?
9. Does your leadership have impact in swaying customer decisions in a positive direction?
10. Is the effectiveness of your leadership mentioned in analysts' reports about your company?
11. Does your company's leadership reputation positively reinforce your company's brand?

Not only will this provide a snapshot of the state of your leadership reputation, but answering no to any of these questions gives a focus for beginning to build a strong leadership brand going forward.

CLOs are in a pivotal position to foster a leadership brand that drives equity for their firms. To ensure success in optimizing value from leadership brand efforts, there are a few critical principles to keep in mind. First, the work needs to be grounded in the organization's vision, strategy and culture. Your leadership brand will position you for the future and is an outgrowth of the best of what already exists. Second, sponsorship from the top leaders is critical: Before the attributes of your leadership brand can be cascaded and embedded throughout the organization, the executive team has to own the brand and must be the first to live it.

In addition, key processes, such as talent development, performance management and reward systems, need to be aligned to support the brand. The final principle is that your leadership brand needs to be part of the leadership fabric across the organization before it has the power to be a competitive external driver of equity.

Investment in building your organization's leadership brand can realize the value of untapped equity, which is critical in these difficult and uncertain times. As challenges mount on every side, the full potential of corporate value needs to be mobilized and directed toward the fundamental goal of surviving and ultimately thriving in the economy of the future. Recognizing, optimizing and deploying the value inherent in a company's leadership brand can be critical to tipping the balance toward success. **CLO**

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Games for Health and Safety Training

Whether you prefer the bells and whistles of computer-aided games or something a little more low tech, games should be created to suit your needs. Below are two examples of low-tech options used in the safety industry for training purposes.

Communication: The need for information to be properly communicated is critical to all aspects of field health and safety. This can include a spotter talking to a crane operator, describing where to raise and lower a 10-ton object, or a supervisor describing daily tasks and which safety precautions must be taken by the workers. The following exercise is an excellent low-tech option for teams of two and focuses on interpersonal communication skills. The exercise requires the use of Legos.

With a common barrier between two participants, one describes a "structure" that is built, which the other cannot see. The objective: Create the mirror image, identical in shape, color and space. It's no easy task unless one is listening and communicating properly. Words and terminology, but not hand signals, must be used.

Hazard recognition: The ability to recognize a hazardous condition and take appropriate action to correct that condition is at the core of a solid safety mindset. This recognition is the result of knowing safety standards and applying that knowledge to train the eye.

A series of photos, real or doctored, are prepared, in which multiple hazards exist. The objective: Identify all hazards. Photos are reviewed and participants write their answers down on a piece of paper. Participants then exchange papers and grade each other's work. Twists on this activity include a team competition, timed for speed, offering extra points for those who can cite the regulatory standard being violated.

The Future of Game-Based Learning

Moving into the future, game-based learning will grow even more and take on different applications. For instance, "serious games" are video-game-type applications used for training purposes. These virtual-world computer simulation games allow employees to interact with their work environments, preparing them for what they can expect to encounter in the real world. Such tools are now used in retail sales and allow employees to experience and manage confrontational customers, shoplifters, emergencies and other critical managerial activities. There is much optimism regarding the use of video games to train. These tools can no doubt have powerful physiological effects on the body: increased heart rate, respiration and sweating. These experiences make lasting memories. **CLO**

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