

Sim Learning with Class Work Better Prepares Trainees

By DOMINICK TOLLI, AMERICAN RED CROSS

Simulation learning, in combination with traditional classroom experience, prepares people better to act in a crisis than classroom learning or online learning alone, according to a new report sponsored by the American Red Cross.

The report is based on an extensive review of the scientific literature on the benefits of simulation learning, including a meta-analysis of dozens of studies by the U.S. Department of Education. It also includes the results of 15 interviews with cognitive experts and first responder trainers.

The Red Cross, a source of emergency preparedness training, undertook the effort to assess whether incorporating simulation learning into its online curriculum could improve training products and ensure that learners, including facility safety managers,

were better prepared for emergencies.

The answer is a resounding, "yes."

Simulation learning refers to a method of training in which learners test their knowledge using online interactive, scenario-based simulations. In any given scenario, learners may select from a number of possible actions, each of which results in reactions and outcomes based on the learner's choice.

Studies reviewed in the new report show that simulation learning is best when combined with in-class training. This blended learning format allows learners to "debrief" with instructors after simulations in order to understand their mistakes, ask questions and then have hands-on practice of the online scenarios.

The Red Cross believes that augmenting in-person instruction with online simulation

learning enables more people to receive an enhanced training experience – one that will help prepare them to perform the correct actions, should they face a real-world medical crisis.

Learners "who undergo a training experience that incorporates a blended instruction approach are better positioned to respond appropriately during moments of crisis," the report found in its review of the scientific literature. "Further, in combination with classroom training, online simulation learning can be more efficient and effective than traditional classroom-centric education alone."

Major Training Advantages

The Red Cross report found that simulation learning offers four key training advan-



Training for Industrial, Facility & Building Maintenance



Live, Instructor-Led Safety Training
*Public Seminars Available
or held Privately at Your Facility*

*NFPA 70E®, Boiler Safety, NEC®, HVAC,
Basic Electricity, High Voltage Electrical Safety,
VFDs, Facilities Management, and Many More*

Call today at 1-877-722-7760 or visit us online
www.AmericanTrainco.com

Mention Promotion Code: Y02

tages in health and safety training:

Real-world scenarios: Researchers found that simulation learning is effective because virtual scenarios can be designed with engaging psychological realism. Engulfing students in common real-world variables offers greater challenges and training dimensions for learners when compared to non-interactive text-based problems. In this way, simulation learning can bridge the gap between classroom exercises and the real world.

Psychological realism is important because stimulated learners retain information more efficiently and effectively than those who are less compelled by the subject matter. Researchers have found that it is more important for simulations to be psychologically realistic than physically realistic.

A no-risk experience: Virtual interaction offers a safe environment in which learners can test their knowledge of training concepts and procedures with no fear of harming the sick or injured subject. Learners are free to practice skills, make decisions and commit errors without real-world consequences. The research shows that self-paced, no-risk environments allowing for unlimited attempts at mastering knowledge and decision-making

results in greater learner confidence.

A paramedic interviewed for the report said that the value of simulation learning "is being able to make mistakes in a low-pressure environment and then learning from your mistakes, and then doing that repetitive action. So that when you do have the pressure on you and you know you have to perform with that pressure, you are able to do it because you have seen it done and felt it before."

Practice makes perfect: Simulation learning allows learners to repeatedly test their skills and knowledge at their own pace and in a variety of scenarios and roles. Learners can train anytime and anywhere they have access to a computer.


Studies show that learners using interactive simulations in which they control the interactions, and can repeat them as needed, are more likely to develop the kinds of automatic responses and confidence essential in first responders faced with an emergency. Researchers found that learners who are given control over their interactive simulation learning had more positive attitudes, better cognitive outcomes and invested more and attempted more complex strategies than when they had no control."

A new way to train: Simulation learning can be more engaging and effective than classroom learning alone. Although simulation learning is not intended to be a game, many learners find the video-game-like aspects of the interactions engaging for the same reasons people are attracted to gaming.

"Scenario-based methods are very engaging," one simulation training researcher said in the report. "That is how adults like to learn. They like to apply information that they already know or new information to situations that they are likely to experience or that they have experienced in the past."

The Red Cross report found that simulation learning has other practical advantages, including cost savings, ease of implementation, satisfaction of both trainers and trainees, and ease of tracking learner progress through the training materials. "These basic practicalities of online simulations are well documented and have broad consensus across academia." **FSM**

Dominick Tolli is with the American Red Cross. If you are interested in Red Cross workplace training that meets OSHA requirements, call 1-800-REDCROSS and select the Health/Safety prompt.


 **Compliance Solutions**
"Today's Training... Tomorrow's Solution"

Available Online!

Global Harmonization System Training

The Globally Harmonized System of Classification and Labeling of Chemicals Includes:

- History of GHS
- International Mandates
- GHS Model
- Required Safety Data Sheet (SDS) Formats
- Labeling, Pictogram, Signal Words, Hazard Statements, and Hazard Codes
- New Mandatory Training Requirements
- GHS/HCS 2012 Transition Plan

 **OSHA**
29 CFR 1910.1200

www.csregs.com
800-711-2706



Knowledge Is Your Competitive Edge

Keep your competitive edge with print and digital learning resources from ATP. We publish a broad range of materials that build confidence by focusing on the skills and applications necessary to succeed on the job site and in the classroom.

ATP learning materials feature:

- Effective Instructional Layout
- Field-Related Applications
- E-Textbook Options
- Digital Learning Tools

Scan here to visit our website for more product information.



Your Partner in Learning

 @ATP_Connect

800.323.3471 | WWW.ATPLEARNING.COM