

Scenario-Based Learning and Emotions: What Science Tells Us

In an immersive, scenario-based learning experience, learners become invested in the activity, which will activate their emotions, elicit chemical changes in their brains, and cement memories.

By **Irene Stern Frielich** - June 14, 2021



Have you ever hopped on a courtesy van from your hotel to the airport or from your home to a car rental company? Was it a great experience, or did your interaction with the van driver leave a little to be desired?

If you had a positive experience, perhaps you wondered how your driver knew the appropriate things to do and say to leave you feeling good about your ride. Recently, we were engaged to develop an e-learning course to help improve customer ratings of our client's courtesy van drivers. Our client decided that an e-learning modality would be best, allowing van drivers from all over the region to complete the training when and where they needed it, just-in-time.

Identifying Scenarios

One of our first steps was to obtain realistic scenarios that produced, well, less than desirable outcomes. Through a series of needs assessment questions, we worked with the client to identify the top five scenarios that caused the greatest customer service issues. For example, van drivers often insisted on taking short cuts the passenger wasn't comfortable with, frequently discussed politics, and even had messy or dirty vehicles. We probed further to identify common inappropriate driver responses and examples of how the passenger reacted to each one.

These details provided us the content we needed to create branching scenes in an animated sequence. We built this animated sequence around the scenario of a van driver and his customer.

As an example, the van driver (learner) would see or "immerse in" a common situation he might experience. In the scenario, the passenger might say, "What do you think about the news we just heard on the radio?" The learner then needs to select the most appropriate van driver response, including options such as, "It sure is a crazy election," or "We are not supposed to talk politics with customers," or "How about other things in the new—did you see the game last night?" The scene progresses based on the learner's selection and ends with specific feedback to aid learning. If the path chosen was the "most appropriate" set of options, the feedback reinforces the behavior. On the other hand, if the path chosen was not ideal, the course provides specific feedback to explain why it is not ideal, what is better, and why it is better.

Eliciting Emotions

Research behind brain science supports scenario-based learning. One way scenarios can help people to learn is by eliciting emotions.

PET (Positron Emission Tomography) imagery shows that people's brains respond to emotions, such as those elicited by stories and scenarios. Memory storage is enhanced by this emotional activity.

When someone hears a story or scenario, whether positive or negative, the emotional response causes chemicals to be released in the brain. A researcher named James L. McGaugh discovered these chemicals act as "fixatives" that cement the experience or scenario into memory in the brain.

"The findings of both animal and human studies provide compelling evidence that stress-induced activation of the amygdala and its interactions with other brain regions involved in processing memory play a critical role in ensuring that emotionally significant experiences are well-remembered...emotional arousal during or after learning enhances long-term memory and the modulation involves epinephrine and cortisol," wrote McGaugh (McGaugh, James L. "Making Lasting Memories: Remembering the Significant." June 10, 2013, *Proceedings of the National Academy of Sciences*. Accessed February 11, 2021.)

So the next time you have material you need your learners to absorb, consider designing an immersive, scenario-based learning experience. Your learners will become invested in the activity, which will activate their emotions, elicit chemical changes in their brains, and cement memories.

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