

Chapter 7

Simulation Scriptwriting and Storyboarding Design Considerations for Production

Robert Eugene Smith

American Public University System, USA

Gordon Samuel Coulson

American Public University System, USA

Wendy Smith Wilson

American Public University System, USA

ABSTRACT

This chapter will describe the process for writing a script and storyboard as part of the design and development of a simulation experience to be added to an existing, computer-facilitated, emergency management learning curriculum or course primarily in a higher-education setting; however, the information in this chapter relates to FEMA Homeland Security Exercise and Evaluation Program (HSEEP) exercise types as well. This chapter will detail steps and considerations to be taken as part of the analysis and design of a simulation, which will ease the development process and avoid unintended complications by first focusing on identifying the instructional needs and objectives of the simulation, scriptwriting and storyboarding scenario decision points that will address the learning needs second, then afterward taking into consideration what level of media representation is appropriate to implement the scenario. Design decisions that affect difficulty to represent in certain media are analyzed.

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INTRODUCTION

A simulation incorporates practical application elements to a topic that might otherwise be taught in a more theoretical manner. Today's technology provides instructional teams, media developers, and subject matter experts the opportunity to provide simulated events using a variety of platforms and methodologies. An organization with Disaster and Emergency Management Degree Programs must strive to provide students a unique and fulfilling learning experience (Rosenberg, 2006).

Often, when deciding to implement simulation into a curriculum, the type of media is chosen first, and then it can become difficult to implement the needs of the lesson into that type of environment. Very often, exciting new technology such as virtual reality or 3D gaming will catch the eye of administrators, trusting that it can be made to meet the needs of the learners (Van Eck, 2015).

While it is good to be familiar with the different media implementation types, a good scenario primarily relies on the premise and plausible real-world application it represents, and secondarily on how it is conveyed (Herrington et al., 2007). Therefore, it is important to begin scenario design by analyzing:

- the intent and objectives of the course
- current gaps in learner performance
- desired skills and behavior of the students at the end

A scenario can then be designed according to actual needs and determine the appropriate media to convey it, rather than trying to justify a novel pre-conceived solution to a problem that is not a good fit for the intended purpose.

BACKGROUND

This chapter is written from the perspective of a team of educational simulation designers, such as Instructional Designers, Educators, Emergency Management professionals, and Media Developers, all working in concert. If, however, one is attempting to create a simulation and does not have some of these roles available, their perspectives and considerations are described to ensure that critical elements are included to avoid common problems.

If budget and availability allow, it is always better to add trained professionals rather than perform unfamiliar roles. It is unlikely that just one person will have all of the knowledge and skill to perform all of these tasks. A team of people is necessary to ensure that the proper viewpoints and skill sets are brought to bear. To meet these ends, a meeting schedule should be implemented and followed.

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