Guidelines for Developing

Scenario Based Learning Activities

Introduction

Scenario based learning (SBL) uses real-life situations to engage your learners in a problem, process or decision that they have to collaboratively resolve. It provides excellent opportunities for improving critical thinking and problem solving skills, and allows for assessment of the learning process.

Scenarios can be developed for any purpose and for any subject matter, and to any degree of complexity. Scenarios can be used for class or an entire course. They can use simple narrative and visuals or high-tech multimedia. It depends on what you want to achieve.

This Guide provides a framework for development of simple scenarios. A sample scenario and development templates have been included to help guide you through the process.

The Process

Step 1: Why scenario based learning?

Scenario based learning activities are not right for every situation, so it's important to clearly understand your context and what you are trying to accomplish.

- What course are you considering for a SBL activity and why?
- What is the delivery method of the course (f/f, online, blended)?
- What is the academic level of students (1st year, 2nd year etc.)?
- What are the intended outcomes? Is SBL appropriate for those outcomes?
- What is the scope of the scenario you are considering (entire course, 1 day, 1 activity)?
- What resources are available to support development/delivery?

Step 2: Develop scenario purpose & objectives:

A purpose statement describes the scope of the scenario in one concise statement and provides clear direction for design.

Example: Earthquake Scenario

Purpose Statement
The purpose of the earthquake-learning scenario is to confirm the roles and responsibilities an instructor has in a classroom full of students during and immediately after an emergency situation.

Once you are clear about your purpose, identify the learning objectives the scenario is intended to achieve. The objectives describe the specific actions that need to occur in order for the SBL activity to successfully achieve its purpose.

Objectives are a key tool in the development of the SBL activity because they:

- describe the desired learning outcomes of the scenario
- provide a framework for developing the scenario
- provide a focus for evaluation

Example: Earthquake Scenario

Purpose	Objectives
The purpose of the earthquake-learning scenario is to confirm the roles and responsibilities an instructor has in a classroom full of students during and immediately after an emergency situation.	1. Learners will illustrate decision-making responsibilities in the role as an instructor in an emergency situation 2. Learners will revise safety plan given the intervening circumstances

Step 3. Develop expected actions of learners:

Expected actions are the individual, discrete tasks that learners need to be complete in order to successfully achieve an objective. They provide a mechanism to identify both strengths and areas needing additional work. Expected actions are identified from objectives, and for each objective, there will be one or more expected actions.

Example: Earthquake Scenario

Purpose	Objectives	Expected Learner Actions
The purpose of the earthquake-learning scenario is to confirm the roles and responsibilities an instructor has in a classroom full of students during and immediately after an emergency situation.	1. Learners will illustrate decision-making responsibilities in the role as an instructor in an emergency situation.	1. Identify appropriate actions to take to ensure the safety of themselves and students 2. Assess and identify safety concerns of the environment – structure integrity, injuries, odor of gas, presence of smoke and fire 3. Instruct students to exit building in an orderly fashion by the nearest stairway and to gather at the pre-determined muster point 4. Address immediate health and safety issues

Step 4: Create Prompts

During a scenario, expected actions are translated into prompts and instructions through the use of questions, and/or tasks, and/or problem statements.

- *Questions* - directly ask students to discuss a particular aspect of the expected action
- *Tasks* - directly instruct students to carry out a specific activity
- *Problem statements* - prompt student to perform a specific activity or set of activities

A scenario may consist solely of questions, tasks, or problem statements, or a combination of all three. The purpose of a prompt is to guide learners to do *something* in order to demonstrate achievement of expected actions, which in turn allows for achievement of objectives – one of your measures of success.

Example: Earthquake Scenario

Expected Learner Actions	Prompts
1. Identify appropriate actions to take to ensure the safety of themselves and students 2. Assess and identify safety concerns of the environment – structure integrity, injuries, odor of gas, presence of smoke and fire 3. Instruct students to exit building in an orderly fashion by the nearest stairway and to gather at the pre-determined muster point 4. Address immediate health and safety issues	- List in priority, the initial steps you would undertake to ensure the safety of yourself and your students.

Step 5: Evaluation criteria:

So what does success look like? It depends what you were trying to accomplish. Evaluating SBL usually involves a quantitative and a qualitative process.

- *Quantitative evaluation* **-** involves measuring learner performance against a pre-identified standard (learning objectives)
- *Qualitative evaluation* **-** involves analyzing how learners felt about their performance in the scenario

Step 6: Develop the story/narrative:

The story/narrative is the backdrop of the scenario based learning activity and is used to drive the simulation action. The story consists of a description of the events and or problem surrounding the situation.

The story is developed using the subject matter expertise, coupled with information gathered from case studies. The use of subject matter expertise and case studies ensures that the scenario is grounded in reality and provides an accurate reflection of how events would play out in the real world.

The goal is to create a scenario that is realistic, appropriately complex and supports achievement of identified learning activities.

When developing the scenario story consider:

- What is the event/situation/problem?
- What led up to the event?
- What time did the event occur?
- Where is the event happening?
- What are the sequence of events?
- Does the location of the scenario move?
- How serious is the event?
- What response has already taken place?
- What is the predicted future?
- Are there other factors to consider?

Example: Earthquake Scenario Narrative

Earthquake Synopsis

Initial reports indicate that the devastating earthquake that struck at 4:45pm yesterday measuring 8.0 on the Richter scale resulted from a massive rupture along the subduction zone approximately 150 kilometers off the west coast.

The "big one", which many talked about but fewer believed in, arrived with catastrophic effect during the late afternoon rush-hour traffic. Major destruction and widespread casualties are confirmed throughout the area. Coastal areas appear to have suffered heavily as well based on fragmentary reports. The Legislature was in session at the time of the earthquake. Unconfirmed reports indicate that the Premier and most of his Cabinet have survived; extent of injuries is unknown at this time.

It is known that a Tsunami with a 6 to 8 metre wave height struck the west coast at approximately 5:00pm, 15 minutes after the earthquake. In the lower areas, a one to two meter high swell above the high tide mark occurred at approximately 5:15pm, 30 minutes after earthquake initiation. This generated some dyke collapse and serious flooding in South Denton, and the lower river Islands.

All airports in the Denton area are closed due to heavy damage to runways and support facilities as well as considerable flooding. Large sections of the affected area are without electric power, telephones, water, sewage, natural gas and other lifeline

services. Vehicular movement is paralyzed due to road damage; almost all bridges in the Denton area appear to have suffered damage.

To the best of our knowledge most medical facilities are continuing operations, with severely reduced capability due to structural and utilities degradation, particularly amongst the older hospitals. The suspension of critical water supply to hospitals has reduced their ability to effectively treat casualties beyond a few more hours.

It may be somewhat premature to try and put figures to casualties at this early stage, however, our sources are reasonably confident that casualties in area are in the order of hundreds killed and thousands injured.

Development Worksheets

1. Context & Purpose Worksheet

Scenario Name	Context	Purpose Statement

2. Objectives, Actions & Prompts Worksheet

Learning Objectives	Expected Learner Actions	Prompts
1.		
2.		
3.		
4.		

3. Evaluation Criteria

Evaluation Criteria
Qualitative
Quantitative

4. Story Worksheet

Creating the Story/Narrative
1. *What is the event/situation/problem?*
2. *What led up to the event?*
3. *When did the event occur?*
4. *Where is the event happening?*
5. *How serious is the event?*
6. *What response has already taken place?*
7. *What is the predicted future?*