

THE PROCESS OF SCENARIO CREATION



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Scenario Based Learning Interactive

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THE PROCESS OF SCENARIO CREATION

When you are thinking about developing a scenario for delivery using the SBLi software you will need to take into account the target audience, the subject matter which the scenario is to address and the specific learning objectives you have in mind. Therefore there are likely to be different approaches to scenario development, depending on all of these factors. However, even more important, developing a scenario is a creative process and, like other creative activities, it would be invidious to suggest there is a method for scenario creation. It would be a bit like providing you with a “painting by numbers” approach, which would nullify all creative input.

Rather, what this section attempts to do is to spell out the basic components involved in scenario creation and then provide you with a series of ideas and approaches that have been used in developing existing SBLi scenarios: you can then decide whether you think one or more of these ideas or approaches is likely to be relevant and useful for your scenario creation endeavours.

What is involved in developing your scenario?

Since SBLi scenario development is a creative process – many different forms of scenario have been developed. In some cases the scenario is similar to a digital work book, associated with a text book; in other cases it might resemble a cross between the creation of a soap opera and a documentary film. Nevertheless, despite the diversity of finished scenarios, in most cases, their development has involved the following activities:

- Designing the scenario – based on the target audience, the learning objectives, and ideas on how to make the scenario appealing and engaging for users.
- Story-boarding and writing the script for the scenario
- Taking and/or obtaining photographs and video, creating icons and acquiring or developing other multimedia components
- Incorporating the scenario into SBLi, and testing and editing the scenario before final release

Given the range of different skills involved in scenario development, ideally, it is best done by a scenario development team with the following expertise:

- Knowledge and practical experience in the subject domain
- Instructional design
- Creative writing skills
- Multimedia skills

Where it is not possible to put such a team together, it will be advisable to consider ways in which you might get advice on these different aspects.

Designing a scenario

The first step is to determine the role the scenario is to play within the curriculum and what learning objectives you want to achieve. For instance, is the scenario primarily to provide a vehicle for providing information in a structured way, for developing problem solving skills of a technical, social and/or economic nature, or is to raise and explore ethical or moral issues.

Once the framework for the scenario, including learning objectives, have been specified you then need to consider what form the scenario is to take. Given the creative nature of scenario development, there are no hard and fast rules on this. However, useful ideas can be gained from looking at different forms of scenario that have been used by other scenario authors. The following list of scenario categories, with examples across a range of disciplines, provides some basis for thinking about the form of the scenario you might build. However, note these categories are unlikely to be complete and are not mutually exclusive; a specific scenario may fit in several categories.

Diagnostic scenarios

- Often used for problem based learning exercises. Diagnostic scenarios have been developed for investigating crop disorders, veterinary problems, medical complaints, quality control issues in the hospitality industry; etc.

<http://scenarios.sblinteractive.org/v2/main/StartScenario.aspx?Scenario=212>

Simulation scenarios

- Providing a virtual experience that may precede an actual activity, such as a marine field course, or replaces it. Simulation scenarios have been developed for field courses marine and pond ecology and to provide virtual overseas experiences for engineers. In some cases, experimental procedures can be performed within the scenario either by programming the simulation within the SBLi software alone (e.g. breeding chocolate monsters for genetics practicals) or by using SBLi as a front-end for simulation software (e.g. determining the effect of changing parameters in virtual plants) or using other plug-ins. For instance, a built-in spreadsheet is used in a scenario to investigate the financial profile of various business options in the floriculture industry. Other scenarios in this category address issues of legal ethics and procedural processes involved in quarantine activities.

<http://scenarios.sblinteractive.org/v2/main/StartScenario.aspx?Scenario=208>

“Workbook” scenarios

- In this case the scenario structure provides a framework for working through various components of a specific curriculum. For example, a scenario to investigate water issues in NSW has been developed for high school students presenting them with relevant information within the scenario and through links to other web sites and providing them with ideas on a series of small experiments and projects that the students can engage in as part of the curriculum.

<http://scenarios.sblinteractive.org/v2/main/StartScenario.aspx?Scenario=185>

Familiarise yourself with SBLi functionality

Before you make a start developing your own SBLi scenario it is highly recommended that you make sure you are fully aware of the various functions that SBLi provides by studying the Help files in the SBLi Builder and Player. This will give you a much better idea of the scope and capability of the software that you can utilise in your scenario. For instance, it is important to be aware of the pre-requisite function – that enables you to make conditional relationships in the scenario, such as needing to visit a certain location (e.g. a pond) before a certain action (sampling the water) becomes available.

It is also recommended that you work through a number of existing scenarios, since virtually each SBLi scenario that has been developed has introduced a novel component or way of doing things, as illustrated by the examples above. There are a number of demonstration online scenarios that can be accessed from www.sblinteractive.org.

The first step in SBLi scenario development

Know the SBLi software. Be aware of SBLi's extensive capabilities so you can maximize its ability to replicate the needs of your scenario.

Story boarding and script writing for the scenario

This is the critical component of the scenario development process. How one goes about it depends on a number of factors, including who is involved in developing the scenario. However, in most cases, a workshop to brainstorm the scenario is likely to be the best way to start, using a whiteboard to sketch out the main features. The details of the scenario can then be captured. Initially you may wish to use a template (such as one of the three shown in the Appendix) or you can simply start writing a script for the scenario – much as you might write an outline for an adventure game or script for a movie – with characters, locations, scenes, etc. At this stage it will also be useful to indicate where specific SBLi features are to be used, such as location maps, pre-requisites, and feedback forms.

Multimedia components

Making your scenario as attractive as possible is likely to enhance the experience and increase the engagement of scenario users. Once the outline of the scenario has been completed, it is advisable to then identify what images, audio and/or video, or animation you would like in your scenario or which are essential to your scenario. You can then set about accessing existing multimedia or taking photographs, creating icons, capturing audio and video files that don't already exist.

The second step in SBLi scenario development

Before you consider starting to use the SBLi Builder to construct your scenario, make sure you have a detailed outline of the complete scenario. Trying to construct the scenario in the software from scratch without a plan can lead to unnecessary work if, for instance, you decide to change the design of the scenario or move certain components of the scenario from one section to another. It is also best to assemble the multimedia you wish to use before moving on to constructing the scenario in the SBLi Builder.

Incorporating the scenario into SBLi

Once you have documented the scenario and identified the multimedia to be included in the scenario, you are now ready to start putting the scenario into the SBLi Builder.

The third step in SBLi scenario development

Having completed the first two steps – incorporating the scenario in the SBLi Builder is likely to be much easier and faster.

APPENDIX

SBLi® Scenario Planning: Template 1 (written description)

Please Note: This template is not a prescriptive instruction on how to develop a SBLi. Please adapt this template to develop resources in your particular subject of interest.

Scenario Descriptor	Scenario Details	Example
Name of Scenario		<i>Doug's Apple Problem</i>
Role of student		<i>Horticultural consultant</i>
Brief story or background to the scenario		<i>Students will visit an orchard and assess a plant problem, discuss the problem with the grower and take back infected plant samples to analyse in the laboratory.</i>
Objectives tested/demonstrated		<i>Determine the problem Justify their reasoning Recommend an action</i>
Educational objective/s		<i>Demonstrate the process of diagnosis and to show students how knowledge is used in a real-life situation</i>
Course and placement		<i>Embedded in AG #####. It will be used as an exploratory learning experience before the series of lectures on plant diagnosis.</i>
Assessment		<i>No formal assessment. Questions will be included in the scenario to provide the students with an opportunity for reflection.</i>
Model Answer		<i>Included at the end of the scenario</i>
Delivery format		<i>As a 2hour session in a computer lab as part of tutorial process. Demonstrator will be present to assist.</i>
Team/individual		<i>At student's discretion.</i>
Remote access		<i>Not necessary but will be available through Blackboard</i>

SBLi® Scenario Planning: Template 2 (Itemised list of assets for each location)

Please Note: This template is not a prescriptive instruction on how to develop a SBLi. Please adapt this template to develop resources in your particular subject of interest.

Location 1

Location Assets

Name	Icon image	Environment background	Items	Content	Content media	Content links	Actions	Pre-req
Manuan handling					[picture, video, audio]	[pdfs; excel; word; etc. or to a web page]		

Items

Name	Icon image	Item content	Content media	Content links	Collectable	Pre-req	Monetary Cost	Time cost	Feedback if examined	Feedback if not examined	Action
			[picture, video, audio]	[pdfs; excel; word; etc. or to a web page]							

Location actions

Name	Content	Content media	Content links	Monetary Cost	Time cost	Is a final task	Pre-req	Feedback if examined	Feedback if not examined
		[picture, video, audio]	[pdfs; excel; word; etc. or to a web page]						

ITEM actions

Name	Content	Content media	Content links	Monetary Cost	Time cost	Is a final task	Pre-req	Feedback if examined	Feedback if not examined
		[picture, video, audio]	[pdfs; excel; word; etc. or to a web page]						

Linked pages

Belongs to	Content	Content image	Content links

SBLi® Scenario Planning: Template 3 (Itemised list of whole scenario)

Please Note: This template is not a prescriptive instruction on how to develop a SBLi. Please adapt this template to develop resources in your particular subject of interest.

Learning objectives: What will students achieve by doing the scenario?

- Objective 1
- Objective 2

The story

Give a brief outline of the 'story' or background to the scenario (1 or 2 paragraphs).

Items

List items that will be used to achieve the objectives and make the story realistic e.g. documents, audio clips, collectible objects

Actions

List actions the user will take to achieve the objectives.

Locations

List locations that will appear in the scenario

Location 1

Provide details or notes for each location

Location 2

Location 3

Location 4