



It's 2061. Western governments who enjoyed wealth and power for centuries, could no longer pay their crippling debts to the East. Their resulting war has been all but lost. The famine, riot, looting and disorganization in the cities has brought all war efforts to a standstill. The elite forces held in reserve have simply disbanded.

In desperation, the G20 governments announce that in 30 days, the internet will be switched off in a last effort to cripple the eastern economy and save their own.

What will happen in the next thirty days, before the internet is turned off and all communication between people is cut off?

WWW.THEWIRELESSUNDERGROUND.COM

Those opposed are calling themselves the Wireless Underground - attempting to stop what they see as an even greater disaster.

SBL101

Overview

- Differs from other forms of eLearning in that it requires the selection of responses to move through questions
- Focuses on performance improvement rather than getting the right answer.
- Supplies information as need to focus on meta-cognition to make choices.

What does the learner need to do?

- Asks the learner to apply developing knowledge to a given outlined scenario
- Asks the learner to navigate a pathway making choices that affect subsequent information, events and future choice

What does the teacher need to do?

- Teacher designs success and failure pathways - where the student is able to re-try
- Scenarios often are presented in a game-like format (unlike Project Based Learning)
- Learner feedback is essential to success.

What is the pedagogical understanding needed to use it?

The outcomes (standards) to be met are framed **within a scenario** - and it is only by uncovering a successful pathway are these outcomes met.

If explicit 'facts' or 'skills' are needed, these are identified by the learner and requested of the teacher.

SBL does not pre-prepare what the student might need - but reacts to what they believe they need at the time they believe they need it.

Failure plays a major role in SBL - Trying again is a norm, students are not penalized for failure; but encouraged to rethink - why they failed, in order to address it better.

Decisions are made frequently - and demand that the learner chooses a further action that represents the BEST pathway - based on previous learning.

What resources do teachers need to provide for SBL

The scenario - the big idea (Similar to a driving question in project based learning, however the question itself is interpretive).

The scenarios options - a pathway that leads to success, completion or truncation and require back tracking (rethinking what you learned - that needs to change)

The scenario's support - Information, links etc., that at some point are relevant to the learning - however these are ill-structured. They appear along a timeline of learning, but their relevance and sequence is not immediately apparent.

The scenario's media - Video, audio, diagrams, photos, wikis, blogs, games, virtual worlds etc.,

The scenario's guidelines - How to play and learn. The rules of advancement, the evidence required of them that answers two specific needs - What you want me to do? and why does this matter to me?

Key ingredients in the design of SBL projects

- Scenario Purpose
- Success option
- Fail option(s)
- Remedy Options(s)
- Levels of cumulative complexity

How do we deliver it

Learning is not linear, with a series of yes no gates, but a number of scenarios are presented around the BIG IDEA, students conduct empirical research using a set of tools to test the hypothesis, truth or accuracy of what is presented.

Contextual, appropriate environments

SBL requires the learner to operate within an authentic, realistic context. It should be familiar to the learner - so that they can make the necessary connections to aid learning.

If the scenario is science based, then the scenario should be based in a science environment - or an environment simulated (student often enjoy the act of visualizing and making these environments as part of the project).

SBL IN A NUTSHELL:

Comparing 'traditional eLearning' to Scenario Based Learning (using technology)		
Characteristics	Traditional Approach (Linear/Systematic)	Scenario-Based Approach (Iterative/Intuitive)
Scope	Deductive: experts determine the scope of learning by examining the subject and its components and establish right and wrong answers	Inductive: stakeholders assemble to share experiences about the subject event, create indicators of successful outcomes, and establish descriptions of successful and unsuccessful behaviors
Focus	The object or subject to be mastered	The learner's behavior
Nature of learning and structure of learning experience	Hierarchical, linear, rule-based branching points instructor control examples/contrived context few paths low data availability grading right and wrong answers scoring	Systemic, non-linear with multiple feedback, evaluative decision points learner control realistic context controlled and multiple paths high data availability advice and guidance problematic solutions performance feedback
Design process	Information driven	Action research
Subject types best suited to	Relatively simple, well-known, and well-structured topics often with high knowledge requirements Knowledge-focused	Complex topics with high interaction or practice requirements Performance-focused

SBL can be described as

"authentic activities that are common to the community of practice in which the learner is involved."

High-level design considerations required before building scenario-based learning are:

- an open learning philosophy encompassing blended learning, with strong connections to other organizational development activities
- a performance improvement imperative behind the SBL function itself.
- rewards and reinforcements that ensure the transfer of what they learn to new situations.

Characteristics of SBL

- Realistic
- Holistic
- Filters out theoretical information - by testing its validity, worth and hypothesis
- Focuses on applied knowledge
- Makes the learner reflect and make cognitive choices
- Engages the learner by dealing multiple perspectives
- Has a high instructional interactivity component.

Understanding your learners

Your learners spend as much time playing online games as they do in the classroom. Research says 10,000 hours to graduate is matched by 10,000 hours in a game. 10,000 hours is also the future that Malcolm Gladwell (ISTE 2009) says is the time it takes to become an expert - in anything.

Understanding your learner and their reality is critical to designing SBL. So prepare to rewire your teaching strategy - as designing a Powerpoint where students select ABCDE and jump to the next question point or fail is not sufficient to engage them.

SBL works well when the question we are trying to solve has no simple answer. We must make value

judgements, but then find real evidence to either support them or address them in order to find contextual meaning - that we can re-use when we encounter similar in the future.

Traditional eLearning

Text or narration may tell you about a particular device, like a camera. You're exposed to its features, told why the features are important, and shown how the components interact. Finally, a test asks you to identify the device, its components (or the concept and related ideas), and the functions they fulfill.

Scenario Based Learning

A picture or video thrusts you into a realistic scenario. The situation is described, and you're given descriptions of possible outcomes. Whether the results are good or bad depends on your actions. You make decisions, as each branches into additional choices.

What appeals to many students, is that SBL allows them to use a creative side of them that they might not have been aware of. Brainstorming a topic, wider reading and individual research - that leads to individuals developing social-status within group of learners.

Learning approaches

Scenario Based Learning, is a cousin of many other enquiry learning approaches - generally clustered under notions and descriptors in constructivist learning theory. There are many intersections and tangents between problem based learning, challenge based learning, project based learning. In education the key differentiation in the learning framework and method that is either adopted or adapted to suit the particular learning situation.

Dewey (1938) held that it is the responsibility of the educator to present students with problems that have some bearing on their current experience, and to make the problem sufficiently interesting to engage learners and arouse their curiosity and natural desire to learn.

In comparison to linear learning, SBL often sees students trying to jump right to the solution or failing to understand the challenge. Without predictable, discoverable answers that they are used to in text-book delivery, they will find it challenging - as the answers are not simply a process of finding and memorising.

Motivational factors for students

life lessons, new friends, satisfaction, chance to play a leadership role, personal growth, extending surface understanding, research, brainstorming ideas, and planning.



SEE THE BIGGER PICTURE

“I CAN SEE WHY THIS MIGHT BE IMPORTANT”

10 RULES FOR CREATING E-LEARNING COURSES AND ACTIVITIES

Rule 1: Don't Create the Course

If the course isn't tied to real performance improvements, it might not be worth building.

Besides, many of the courses we create are just sharing information that's already available in other places like the organization's intranet or via job aids. Why build an elearning course that rehashes information available elsewhere? If anything, build a course that teaches people how to find the resources already available to them.

Rule 2: The Course Needs to be Relevant to the Learner

Most boring courses are the result of the content not being relevant to the learner. Place the course in a context where it makes sense for the learner.

Also, consider that not all learners are created equal. They come to the courses with different levels of experience and knowledge. By creating a learner-centric course, you can accommodate their diverse needs.

The key to interactive courses is not multimedia, rollovers, or drag-and-drop interactions. Instead, it's how the learner will interact with the content. Create courses where the learner doesn't just passively receive information. Instead give them opportunities to reflect on and use the information to make decisions and get feedback.

Rule 3: Understand Your Objectives

If all you're trying to do is share information and track completion before December 31, then build a course that's appropriate for those objectives. The best bet might be to make it easy for the learners to find the information, complete the course, and get back to productive work.

On the other hand, if you're building a course where you desire to change behaviors, an information dump is not going to work. In that case, you want a course that builds the skills the learner will need to meet the performance goals.

Rule 4: Free Up the Navigation

Using the Web has given people an appreciation for freedom and control, and they're unlikely to happily revert to a linear experience.

In the same sense, people like the freedom to review and scan information in the elearning course. Nothing is more frustrating than locked navigation where control is stripped from the person who's supposed to be doing the learning. narrator to advance if you give them the option to read.

Many times the navigation is locked for fear the learner will just click through the course. If that's the case, see Rules 2 and 5. Instead of locking the navigation, control their movement through the course via decision-making. This gives them the freedom to move around and odds are you make the course more engaging.

Rule 5: Don't Push, Let the Learner Pull

Many courses are designed to push information out. But that's not best for learning. You're better off if you can create an environment where the learner has to pull information in.

Instead of a series of click-and-read screens, give the learner a problem to solve. Then provide all of the information that you would normally have pushed by creating access to additional, just-in-time resources. As the learner attempts to solve the problem, she'll pull the information she needs.

Rule 6: Consider the Pacing & Flow

Learning is like eating. You don't just shovel spoonful after spoonful of food into your mouth, at least not normally. Instead, you take in a spoonful of food; chew it up to break it into smaller pieces; and then swallow it so that it can be processed further down the digestive tract.

In the same way, you can't expect to shovel new information on top of new information in the brain. You have to pace it. Take in new information; reflect on it (maybe practice using it); and then send it to other parts of the brain for processing.

Rule 7: Look for Inspiration Outside of E-Learning

Sometimes in the elearning industry we tend to become so idealistic about what real elearning is or isn't that all we do is complain or force all sorts of instructional design rules that diminish creativity.

Rule 8: Create a Course That is Visually Appealing

Unless you're doing a sleep study with a group of insomniacs, most likely a white screen full of bullet points won't attract their attention. People are attracted to things that look interesting. If you want to engage learners, start by crafting a visual theme that is visually interesting, relevant to the content, and immerses the learner into the course.

If you are not great with tools such as Adobe Photoshop or Movie Maker ... get better at finding resources made by people who are. Keep the facts and instructions simple, and pull in material and images that already exist - Flickr, YouTube etc.,

Rule 9: There's a Place for Novelty

A novel approach or design to your course can be critical to engaging the learner.

Just remember that what's novel at the beginning of a course can quickly become annoying. So you want to balance it with good design and probably look at giving the learner an alternative, or a more traditional, means of getting information.

Rule 10: Commit to Engaging E-Learning

A lot of elearning is no good is that there's no real commitment to make it more engaging. And that falls on the shoulders of those who build the courses, whether they are teachers subject matter expert, or instructional designer.

Regardless of the tools you use, you can create effective elearning.

Step away from the information dump and focus on the learner. Then find creative ways to place the course content in a context that is relevant to the learner.

If you do these two things, you're on your way to creating effective and engaging elearning.

IDEAS FOR CREATING E-LEARNING EXPERIENCES

When presenting eLearning there has to be a climate created to achieve engagement.

Create and Entry Event

Learners don't need everything explained at the outset, but they do need to be drawn into thinking about what is about to happen. An event can be showing them a video; playing a song; watching a role-play or going on a field trip. Something needs to happen that signifies a beginning to learning

Create an Entry Document

Learners need to know what they are going to learn about and what will be required of them. This does not need to be entirely exhaustive but must include the following elements

1. A big idea linked to the real world - a reason that this matters and has value. Usually achieved through an essential question.
2. A project map - what will happen during the project - what are they expected to do, how and when (students benefit greatly from a calendar).
3. A series of tasks - an incremental series of individual tasks that force critical reflection to occur on their own learning
4. Project meetings within groups - provide students with a scaffold on how to arrange and run a productive meeting with actionable outcomes
5. Teach Meets - explain how, why and when they can see advice from the teacher (who isn't there to give them all the answers all the time).
6. An Avant Project Presentation - Give students an early deadline to make a presentation of what they are doing/ making to be peer reviewed by others.
7. A final presentation - whatever they make/do, they need to defend it to an authentic audience - who can you bring in to make it feel 'real'
8. A rubric - how are they going to be assessed at the end of the project.
9. Critical reflection - students need to write and reflect AFTER the project on what they learned and how it relates to the essential question.
10. Feedback - not JUST a mark or a grade - State - I liked x, I wondered about y and in the future you could z.



James

James is a typical teacher. He's been teaching English to middle school for 10 years to a mix of ethnic cultures and mixed ability in Elk Rapids, Michigan.

He wants to teach a unit on Utopia using Animal Farm, and his supervisor has told him he needs to use technology - not something he feels comfortable with.

His classes always achieve above average scores and he's a very active member of staff that already does a lot of extra-curricula work. He has always taken pride in the time and effort he has spent in developing his lessons.

He spoke to his supervisor, who said that being online is where teaching is heading and wasn't interested in his concerns, and to get on 'the bus'.

James asked for a meeting with his District's Director of Development - as he's concerned why he's been told to do his job in a different way.

Traditional learning approach

1. Identify one reason James does not want to change his practice?
2. Suggest 3 steps his supervisor take to ensure James complies with the instruction?
3. Do you think that James is justified in his reluctance? Why or why not.

Based on typical Blooms Taxonomy.

Considerations

Scenario Purpose (standards)

Success options(s)

Fail option(s)

Remedy Options(s)

Levels of cumulative complexity

What is we want people to learn about?

1. What is CORE to the standard
2. What is IMPORTANT knowledge needed to support that core
3. How to we frame the scenario so that it appears WORTHWHILE exploring.

Scenario Based Learning Approach

You goal: Convince James that technology has a place in his classroom.

Your task: To develop a resource that will help teachers understand the need to adopt technology into the classroom. Possible scenarios to explore?

1. What challenges does James face a work?
2. Is James' age important?
3. What interests him?
4. What is his work environment like?
5. What would his typical day be like?

Use the mapping organiser to help you devise 4 further scenarios with success and fail options - as an Avant Project presentation. Then following a discussion, create a more detailed mind-map using <http://www.mindomo.com>

There is a pre-existing starter mind-map at <http://bit.ly/crCEEQ>.

Downloads (desktop software)

(win) : <http://bit.ly/999JHL>

(osx) : <http://bit.ly/8ZFmma>

or use paper!

SCENARIO PLANNING ... MAPPING THE PROJECT

STANDARDS	ISTE NETS	TIMEFRAME

SOLO LEVEL	SCENARIO	SUCCESS	FAIL REMEDY	COMPLEXITY	ASSESSMENT METHOD
1					
2					
3					
4					
5					

WHAT DO THEY KNOW	WHAT TO THEY NEED TO KNOW	WHAT WILL THEY LEARN
1		
2		
3		
4		
5		

AVAILABLE RESOURCES	RESOURCES TO MAKE	STUDENT TOOLKIT
1		
2		
3		
4		
5		

THE SOLO TAXONOMY APPLIED TO SCENARIO BASED LEARNING

Scenarios may be presented in several instances to students in an iterative method. Using a SOLO taxonomy - The student is progressively moved through incremental levels of problem solving and critical thinking. When designing scenarios, teachers must make a positive effort to consider how the scenario is presented - and what it asks students to do. Within each level of attainment, teachers might also use Blooms Revised Taxonomy to create sub-tasks and activities.

SOLO Principle	TEACHER RESPONSE	STUDENT RESPONSE	LEARNING ACTIVITIES
1. Create enhanced understanding and comprehension	State the rationale in real world terms to make it relevant to students.	<i>Student response: "I know what is this about" or "I know what is it I have to do"</i>	Creating a clear 'brief' or 'assessment outline at the outset of learning. This includes giving students the 'assessment task' as the first lesson/lecture.
2. Venturing their ideas spontaneously; reflect on past experiences; give more elaborate explanations of cause and effect; asks questions that focus on explanations and causes; errors; theorizing; predicting and resolving future events and actions	Develop an interesting and challenging learning scenario with multiple pathways to help students explore a range of possible directions and effects	<i>Student response: "I am presented with a challenge that would be good to solve" or "this really lets me explore new ideas"</i>	looking; reading; operating; playing; solving; listening; watching; communicating; discussing, finding, moving, demonstrating, trying, testing, playing, wearing, attaching, solving, manipulating, taking, giving, sharing, selling, buying, winning, losing.
3. Constructing more elaborate well-differentiated knowledge structures through curricula, teaching methods and assessment; encouraging deep learning and deterring surface learning.	Setting assessment tasks that require students to engage with the learning environment, using the resources to adopt a deep approach to learning.	<i>Student response: "this project makes me think!" or "encouraged me to participate" or "I liked this assessment method"</i>	The activity requires the student to 'think' about, not 'memorise' information. Students use experiences to reflect on their alignment and relationship to the assessment task. Journaling, blogging, prototyping, filming, narrating.
4. Engaging in authentic assessment that is realistic; inter-connected and incremental	Students are able to recognize the value in using incremental learning scaffolds and use them to demonstrate critical thinking about the subject matter and responses	<i>Student response: "I can see where all the pieces fit"</i>	Activities that help piece together multiple aspects of the unit. They need to allow the students to put these together, bringing in knowledge from outside the activity (transference) that help them in future situations.
5. Make obvious connections between all elements (activities) that deliver learning outcomes.	Students recognise that the classroom learning as a real world impact, relevance and implication. They are given opportunities to demonstrate their application through summative project and/or social action.	<i>Student response: "I can apply the learning to new situations"</i>	Applying the principles in your own context. A competency from a syllabus, an examination question or practical demonstration.

From Biggs & Collis (1982) 'Structured Observation of Learning Outcomes, revised by Dean Groom and Judy O'Connell, 2008.