

# UQX

UQx pragmatic development lessons

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- Everything about UQx, who we are, etc. :-)

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UQx

# Working with the platform

HKUSTx  
COMP102.1x  
Introduction to Java  
Programming – Part 1

Current  
Starts: July 7, 2015

HKUSTx  
COMP107x  
Introduction to Mobile  
Application Development using  
Android

Starting Soon  
Starts: July 28, 2015

DelftX  
TPM1x  
Creative Problem Solving and  
Decision Making

Current  
Starts: June 28, 2015

UC BerkeleyX  
EE40LX  
Electronic Interfaces: Bridging  
the Physical and Digital Worlds

Current  
Starts: July 13, 2015

UQx  
Crime101x  
The Psychology of Criminal  
Justice

ANA101x  
Human Anatomy

IS110x  
Innovation and IT Management

ASUx  
AST111- Credit Eligible  
Introduction to Solar Systems  
Astronomy

## Disclaimer

As we are a partner on edx.org, we use *open edX* exclusively as a development stack, we do not run it in production



# 1. Course requests a tool to be developed

The screenshot shows the UQx Development Project interface. A modal window titled "Submit Project Request" is open, allowing users to submit a new project request. The background shows a grid of project cards, each with a title, description, last update date, language, tags, and a "New Issue" button.

**Submit Project Request**

Your name and contact  
Joe Bloggs / joe@uq.edu.au

What is the name of the project  
Project Name

What best describes the project  
Simulation

What is the simulation about? What is its purpose?

How do users interact with the simulation?

What does the simulation look like (description or links)?

What course is this for?  
Course Code

Is the simulation/activity graded (if so, is it summative)?  
Yes / No / Summative

Do users need to see things from other users (if so, how)?  
No / Yes - see eachothers submission

Link to Gallery link in Edge  
<https://studio.edge.edx.org/...>

Close Submit Request

**Background Project Cards:**

- activity\_edx\_chess**  
Description: Allows students to play chess  
Last update: 2015-05-26 15:21:53  
Language: JavaScript  
Tags: activity
- dashboard\_js**  
Description: dashboard in angular (with yeoman)  
Last update: 2015-05-07 17:21:39  
Language: JavaScript  
Tags: mooccczar
- em-sim**  
Description: EM Sim  
Last update: 2015-04-20 16:00:30  
Language: JavaScript
- fish-slider**  
Description: Fish Slider  
Last update: 2015-04-20 15:59:48  
Language: CSS
- kvp-mas-sim**  
Description: KVP Mass Simulator  
Last update: 2015-04-20 16:00:13  
Language: JavaScript

# UQx Dev Process

## 2. Based on requirements, we figure out which architecture to use

	Enhancement	Linked JS	LTI	XBlock
Language	HTML/JS/CSS	Javascript	Any	Python
Usage	Direct CMS	<script src>	POST iframe	Django App
Primary limitation	Per page & maintainence	Per page & only JS	Limited interaction with edX	Dealing with edX pull requests

# UQx Dev Process

Blank Advanced Problem

EDIT

BLANK ADVANCED PROBLEM (1 point possible)

?

1.
2.
3.
4.
5.
6.
7.

CHECK

Enhancing course - new problem interfaces

Blank Advanced Problem

BLANK ADVANCED PROBLEM (2 points possible)

This is a test for multiple choice questions

Question - what colour is the sky?:

?  blue  
 green  
 brown  
 yellow

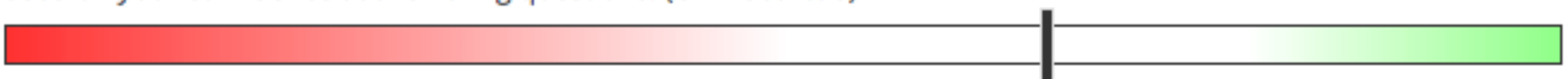
Certainty:

High  Medium  Uncertain

CHECK

Raw HTML

Based on your confidence at answering questions: (CBM Score: 0)



Enhancing course - cross-problem interaction



Hints

Hard Coral Other Biotic

Abiotic

Branching coral

Brain coral

Demo (1 point possible)

1 -- select an answer --

2 -- select an answer --

3 -- select an answer --

4 -- select an answer --

5 -- select an answer --

6 -- select an answer --

7 -- select an answer --

8 -- select an answer --

9 -- select an answer --

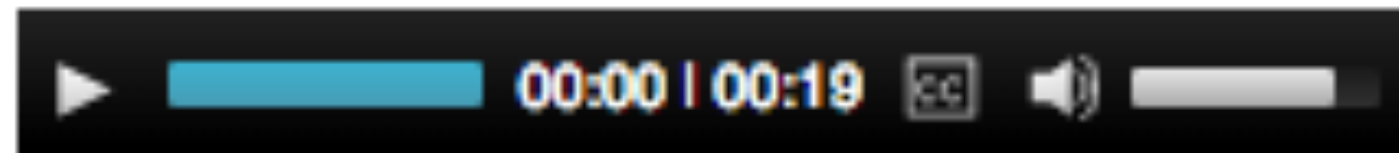
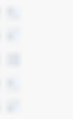
10 -- select an answer --

Enhancing course - enhanced problems



HTML Embed of Audio Player


EDIT

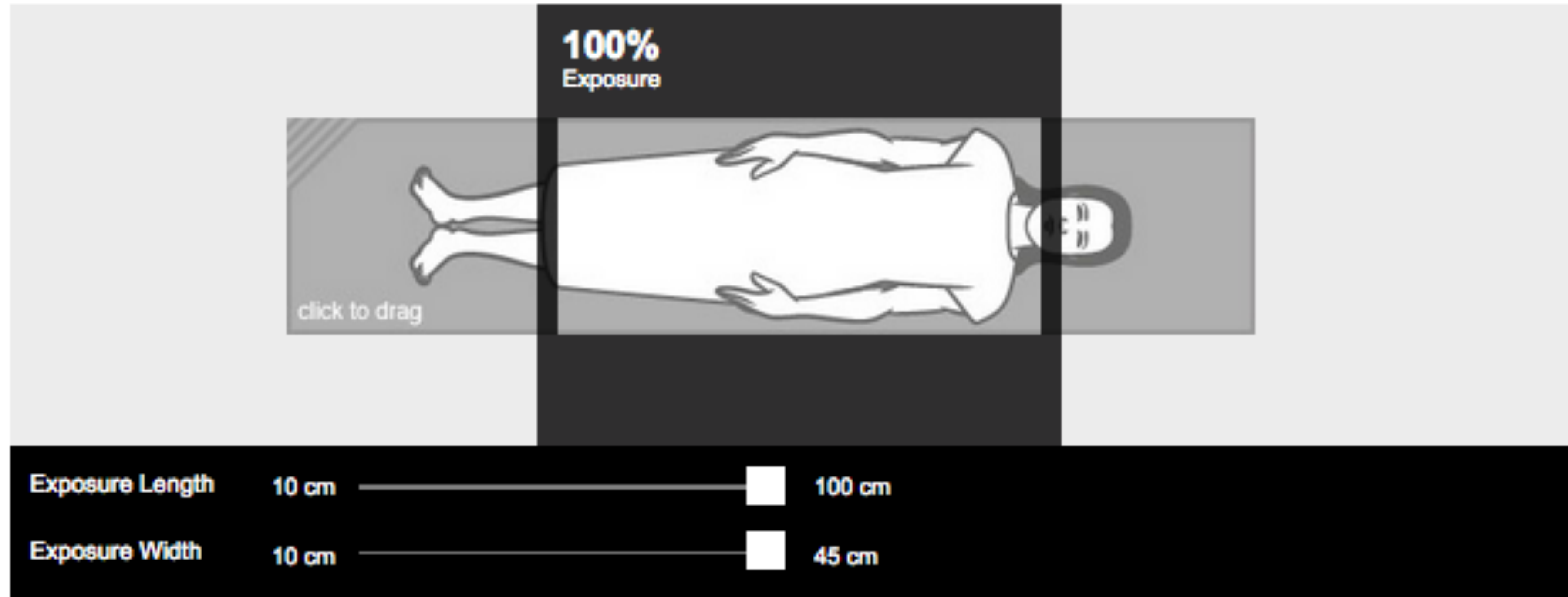


[Start](#) [Pause](#) [Skip](#) [Status](#)

# Linked Script - Audio Player

Demo

EDIT    



The interface displays a top-down view of a patient lying on a table. A dark grey rectangular area is overlaid on the patient's torso, labeled "100% Exposure". A "click to drag" label is positioned near the patient's feet. Below the patient view, there are two sliders on a black background:

- Exposure Length:** A slider ranging from 10 cm to 100 cm, with the current value set at approximately 50 cm.
- Exposure Width:** A slider ranging from 10 cm to 45 cm, with the current value set at approximately 25 cm.

# Linked Script - X-Ray simulation

Raw HTML

EDIT

Click the play button

Play

**Courtfield Manor**  
3rd Floor, Number 16

hallway

common hallway

Highlight text from audio

EDIT

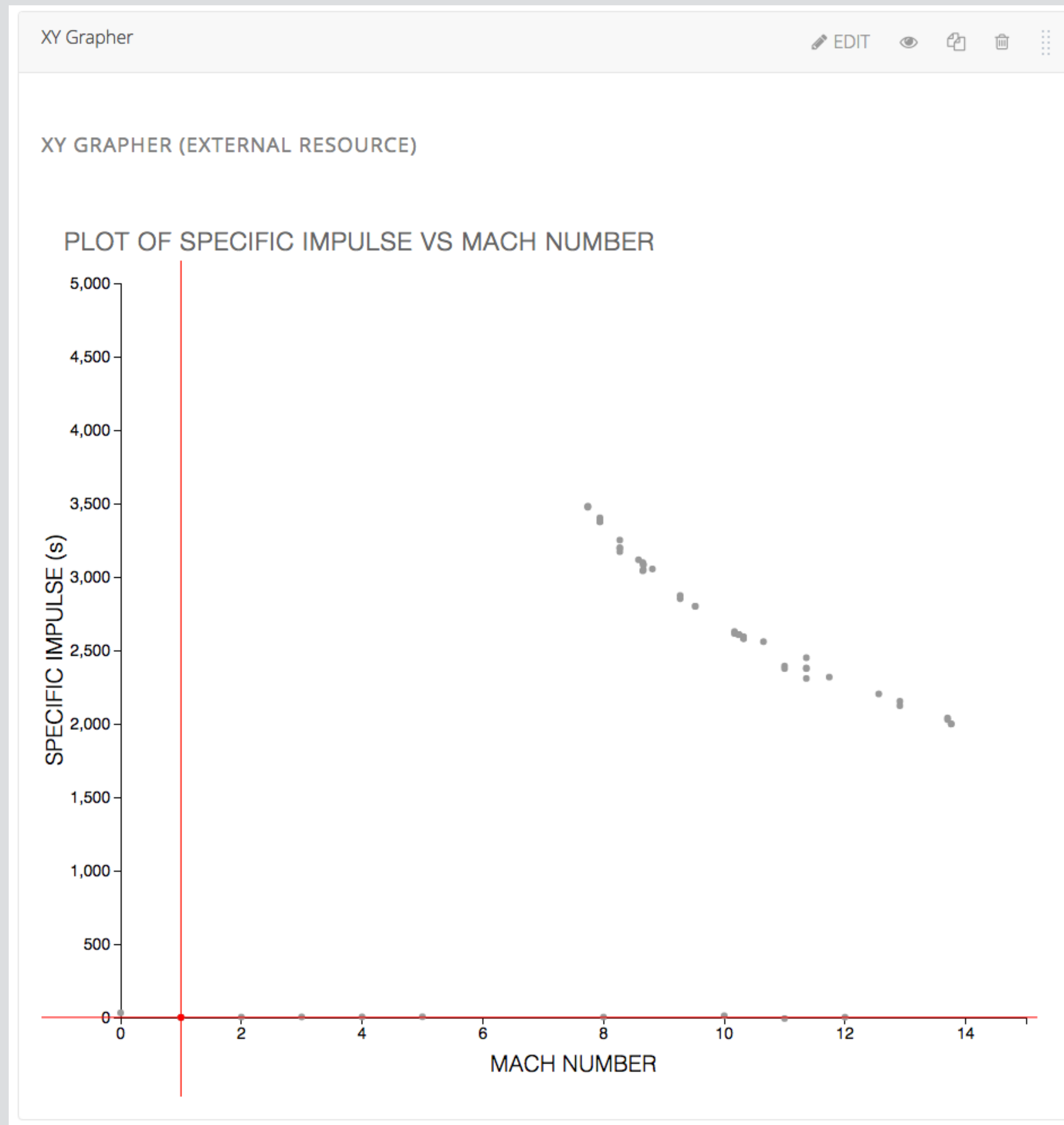
This is a test of how audio highlighting can work

Its not surprising how easy this is, but it is surprising that it works first time

Yes, I agree.

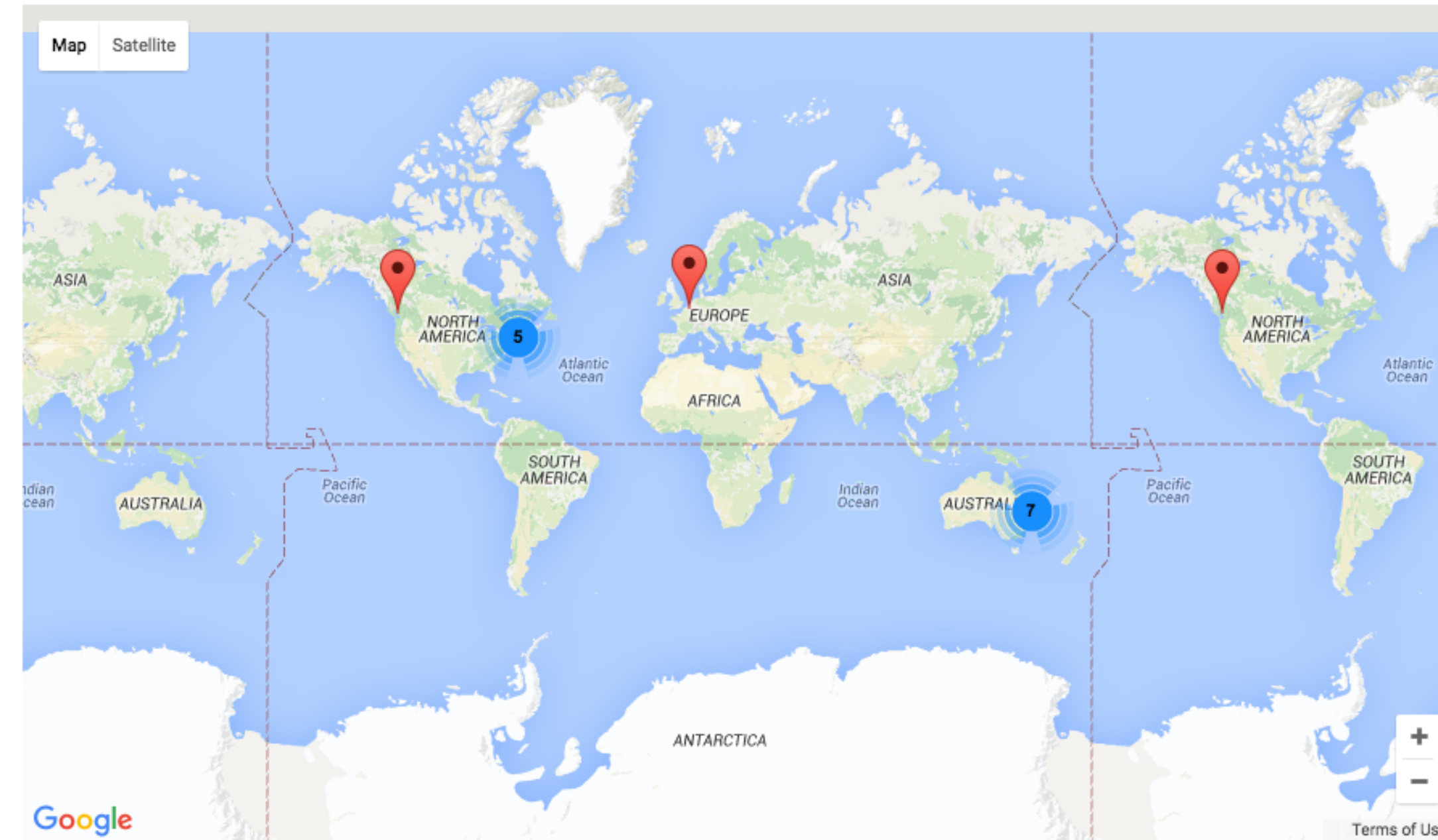
# Linked Script - audio narrative interactions





LTI Tool - XY Grapher

RESPONSE MAP DEMO (EXTERNAL RESOURCE)



Forest Lake, Queensland

Update Your Location



# LTI Tool - Response Map

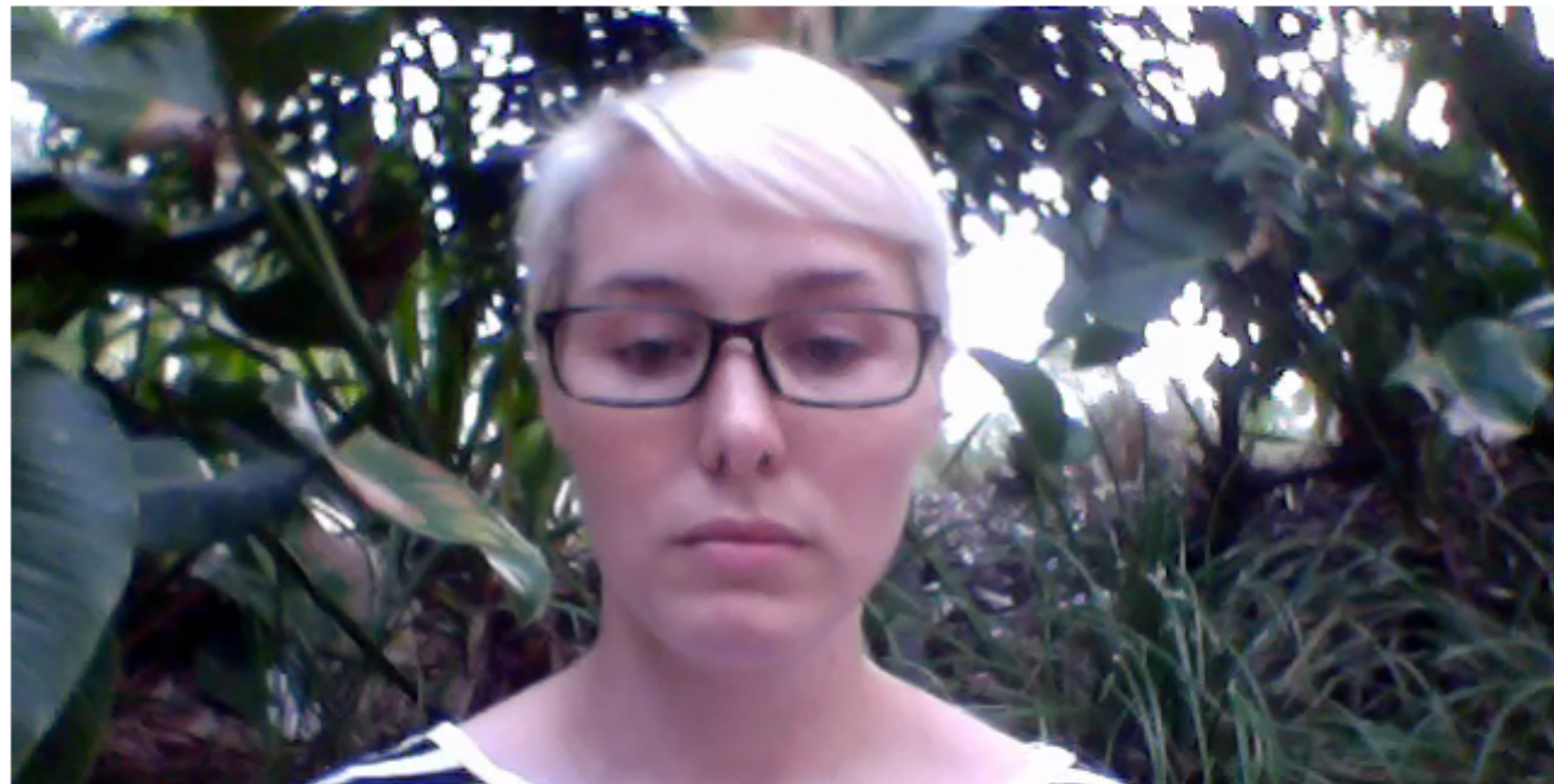


LTI VIDEO UPLOADER DEMO (EXTERNAL RESOURCE)

+ Select video file

Maximum file size is 6.103515625E-5 MB

Preview



# LTI Tool - Video Uploader



LTI (EXTERNAL RESOURCE) (40.0 points possible)

### Listening Practice Test

This activity has been designed to give you an idea of what to expect when you sit the IELTS listening test. When you are ready, click START TEST and the audio will begin to play. Once the audio is complete, you will have 10 minutes to transfer your answers onto the Answer Sheet before submitting.

**START TEST**

**RESET TEST**

**TIME** Approximately 30 minutes

**INSTRUCTIONS TO CANDIDATES**

Start at the beginning of the test and work through it.  
 You should answer all questions  
 If you cannot do a particular question, leave it and go on to the next.  
 You can return to it later  
**All answers must be written on the answer sheet**  
**Do not remove this booklet from the examination room**

**INFORMATION FOR CANDIDATES**

There are **40** questions on this question paper.  
 The test is divided as follows:

Section 1	Questions 1 - 10
Section 2	Questions 11 - 20
Section 3	Questions 21 - 30
Section 4	Questions 31 - 40

LTI (EXTERNAL RESOURCE) (40.0 points possible)

« Start 1 2 3 4 5 6 Answer Sheet »

07:43 | 28:13

Show Timer

**SECTION 2 Questions 11 – 20**

**Questions 11 – 13**  
 Complete the summary below.  
 Write **NO MORE THAN TWO WORDS** for each answer.

**Computer Health and Safety**

Dry eyes can be experienced especially during the 11. .  
 However, this problem can easily be combated by using a humidifier. Another solution is to use indoor plants such as the 12.  plant, which is very efficient at keeping the air clean and moist. To place an order for either of these, staff members should write their 13.  on one of the forms provided.

**Questions 14 – 16**  
 Complete the sentences below.  
 Write **NO MORE THAN TWO WORDS AND/OR A NUMBER** for each answer.

14 The optician's visit to the company begins on

15 Staff need to measure their screen to eye distance when they are sitting in their usual

16 Staff who miss the optician's visit can go to her clinic in the

LTI (EXTERNAL RESOURCE) (40.0 points possible)

« Start 1 2 3 4 5 6 Answer Sheet »

07:44 | 28:13

Hide Timer

10:00

Start Pause Reset

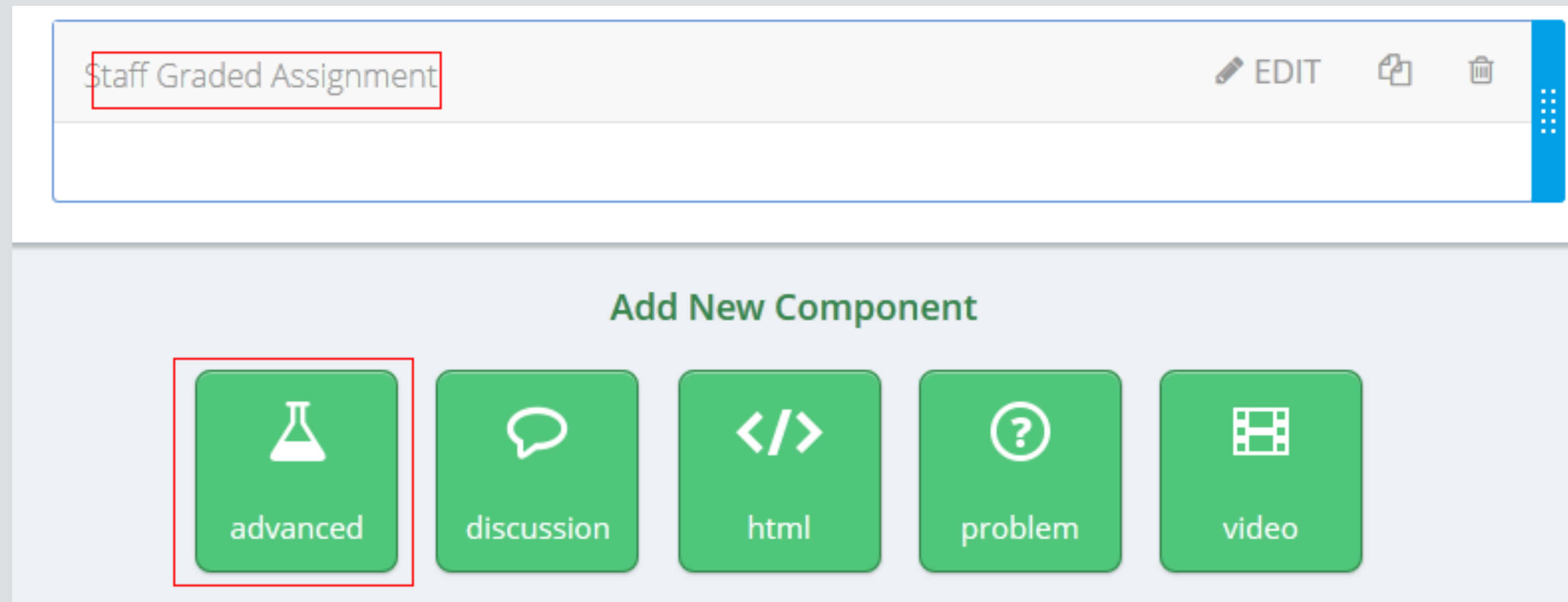
**ANSWER SHEET**

1. <input type="text"/>	21. <input type="text"/>
2. <input type="text"/>	22. <input type="text"/>
3. <input type="text"/>	23. <input type="text"/>
4. <input type="text"/>	24. <input type="text"/>
5. <input type="text"/>	25. <input type="text"/>
6. <input type="text"/>	26. <input type="text"/>
7. <input type="text"/>	27. <input type="text"/>
8. <input type="text"/>	28. <input type="text"/>
9. <input type="text"/>	29. <input type="text"/>
10. <input type="text"/>	30. <input type="text"/>
11. <input type="text"/>	31. <input type="text"/>
12. <input type="text"/>	32. <input type="text"/>
13. <input type="text"/>	33. <input type="text"/>
14. <input type="text"/>	34. <input type="text"/>
15. <input type="text"/>	35. <input type="text"/>
16. <input type="text"/>	36. <input type="text"/>
17. <input type="text"/>	37. <input type="text"/>
18. <input type="text"/>	38. <input type="text"/>
19. <input type="text"/>	39. <input type="text"/>
20. <input type="text"/>	40. <input type="text"/>

**Hand In Answer Sheet**

# LTI Tool - IELTS Quiz

XBlock is a component architecture by edX.org for building courseware.



SDK and Test Suite at <https://github.com/edx/XBlock>

# edX Extensibility

This assignment has several steps. In the first step, you'll provide a response to the question. The other steps appear below the Your Response field.

**Censorship in the Libraries**

'All of us can think of a book that we hope none of our children or any other child will have off the shelf. But if I have the right to remove that book from the shelf -- that work I abhor -- then you also have exactly the same right and so does everyone else. And then we have no books left on the shelf for any of us.' --Katherine Paterson, Author

Write a persuasive essay to a newspaper reflecting your views on censorship in libraries. Do you believe that certain materials, such as books, music, movies, magazines, etc., should be removed from the shelves if they are found offensive? Support your position with convincing arguments from your own experience, observations, and/or reading.

Read for conciseness, clarity of thought, and form.

1 | **Your Response** IN PROGRESS

Enter your response to the question. You can save your progress and return to complete your response at any time. **After you submit your response, you cannot edit it.**

YOU MAY CONTINUE TO WORK ON YOUR RESPONSE UNTIL YOU SUBMIT IT.

Save Your Progress THIS RESPONSE HAS NOT BEEN SAVED.

Submit your response and move to the next step ▶

**Option names**

**Option explanations**

**Option points**

▼ Determine if there is a unifying theme or main idea. — Criterion prompt

- Poor: Difficult for the reader to discern the main idea. Too brief or too repetitive to establish or maintain a focus. 0 points
- Fair: Presents a unifying theme or main idea, but may include minor tangents. Stays somewhat focused on topic and task. 3 points
- Good: Presents a unifying theme or main idea without going off on tangents. Stays completely focused on topic and task. 5 points

▼ Assess the content of the submission

- Poor: Includes little information with few or no details or unrelated details. Unsuccessful in attempts to explore any facets of the topic. 0 points
- Fair: Includes little information and few or no details. Explores only one or two facets of the topic. 1 points
- Good: Includes sufficient information and supporting details. (Details may not be fully developed; ideas may be listed.) Explores some facets of the topic. 3 points
- Excellent: Includes in-depth information and exceptional supporting details that are fully developed. Explores all facets of the topic. 3 points

# XBlock - ORA Leaderboard



The screenshot shows the edX Studio website interface. At the top, there's a navigation bar with a search icon, a user profile 'Andrew', and buttons for 'Help', 'SIGN UP', and 'SIGN IN'. The main header is a blue banner with the text 'Welcome to edX Studio' and 'Studio helps manage your online courses, so you can focus on teaching them'. Below this, the page is divided into several sections:

- Keeping Your Course Organized:** This section features a sidebar showing a course outline for 'Week 1' with sub-sections like 'Administrivia and Circuit Elements', 'Week 1 Tutorials', 'Intro', 'three-series-resistors', and 'Parallel Resistors'. The main text explains that Studio offers an 'Outline editor' for organizing content. Three callout boxes highlight: 'Simple Organization For Content' (using sections and subsections), 'Change Your Mind Anytime' (drafting and reorganizing content), and 'Go A Week Or A Semester At A Time' (building and releasing sections incrementally).
- Learning is More than Just Lectures:** This section states that Studio allows weaving content together. It includes three callout boxes: 'A Broad Library of Problem Types' (multiple choice, etc.), 'Work Visually, Organize Quickly' (drag and drop), and 'Create Learning Pathways' (multimedia, HTML, exercises). A screenshot of a 'POP QUIZ' is shown, with the question 'On a clear day, what color is the sky?' and radio button options for 'Cloudy', 'Green', 'Blue', and 'Clear'.
- Simple, Fast, and Incremental Publishing. With Friends.** This section mentions that Studio works like web applications and supports incremental publishing and co-authoring. A partial screenshot of 'Subsection Settings' is visible.

Going further - edX LTI Tool Provider

# UQx Gallery [https://edge.edx.org/courses/UQx/UQG101/2014\\_T1/info](https://edge.edx.org/courses/UQx/UQG101/2014_T1/info)

edX edge | UQx: UQG101 UQx Gallery | johnzornig ▾

View this course as:

**Courseware** | Course Info | Discussion | Wiki | Progress | Community | Instructor

▼ About

- Introduction**
- List of Resources
- Formatting Standards

▶ Calculators

▶ Simulations

▶ Animations

▶ Assessment and Evaluation

▶ Video

▶ Collaborative Tools

▶ IELTS Tools

▶ Survey

< [Document Icon] >

[VIEW UNIT IN STUDIO](#)

This site has been developed for subject matter experts, educators and software and multimedia developers to showcase the types of course materials that can be developed and delivered on the edX platform. Many of these tools have been developed by the UQx team, but we also hope to add other tools as they become available on the edX platform. It is envisaged that the number of innovative approaches to improving the edX platform and the learning material will grow rapidly as other consortium members contribute content.

Feel free to use this site as you wish. All of the content is freely available on the CC-BY-SA licence including downloading the source code for reuse within your own courses. The asset can also be modified to suit your own needs.

If you have any questions about these tools or if you would like to contribute to the gallery, please send an email to [course@uqx.uq.edu.au](mailto:course@uqx.uq.edu.au).

Have fun browsing.

The UQx Team

- edX provides a number of ways for us to build new methods of learning
- There is no “best method”, each has pro’s and con’s
- A better API to interact with edX problems would greatly help in building new custom experiences
- X-Blocks are fantastic, but turn-around time makes them not feasible for individual course development

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# Reflections





Thank you for your time

John Zornig  
Andrew Dekker

UQx Gallery [https://edge.edx.org/courses/UQx/UQG101/2014\\_T1/info](https://edge.edx.org/courses/UQx/UQG101/2014_T1/info)  
<http://uqx.uq.edu.au> || <http://edx.org> || <http://github.com/UQ-UQx> || <http://github.com/edx>