H5P

FLO EdTech Sandbox Series February 14, 2024, 10AM-12PM

John Cheng & Bosung Kim

Educational Consultant: Learning Design, University of British Columbia



Land Acknowledgement

I am fortunate to be an uninvited guest who was born and currently lives, works and plays on the unceded traditional territories of the x^wməθk^wəÿəm (Musqueam), Skwxwú7mesh (Squamish), and səlilwətał (Tsleil-Waututh) Nations

Learning Outcomes

By the end of this session, you will be able to:

- Explain H5P and how it can be used in teaching and learning.
- Assess the suitability of various H5P content types for different learning contexts.
- Build, publish, and share H5P content relevant to your context.

Agenda

- 1. Learning Outcomes
- 2. What is H5P? Why? How?
- 3. H5P Content Types
- 4. Creating and Sharing H5P
- 5. Wrap Up

Housekeeping

- Pause at various points for questions
- Chat for any questions
- Visit the <u>blog site</u> (<u>https://blogs.ubc.ca/h5pflo/</u>) for slides,
 demonstrations and resources
- Active participation is voluntary

What is H5P?

- Stands for HTML5 Package
- An open-source tool for creating engaging, interactive web content
- Content includes quizzes, interactive videos, presentations, games among many
- Free to use
- Can be shared and reused
- Can integrate with different learning management systems or websites
- Mobile friendly

Active Learning and H5P

- Literature suggests integrating active learning strategies into teaching and learning markedly improves student learning experiences (Freeman et al., 2014, Theobald et al., 2020) and improves learning outcomes (Carr, 2021)
- The incorporation of online tools embedded within curricula provides a unique opportunity to engage students through active learning strategies (Sinnayah, 2021)
- H5P allows for the creation of such strategies, making it a valuable solution in this context (Singleton, 2019)
- H5P provides opportunities for immediate, low-stakes assessments and formative feedback, which can foster self-regulated learning and facilitate student outcomes (Rekhari & Seinnaya, 2018)

When can I use H5P (just to name a few)?

- Organize pieces of text-heavy content and making it interactive'
- Create and embed formative tools directly into course content for immediate student formative feedback
- Reuse and maintain course content across multiple courses/sections
- Make learning engaging and fun!

Benefits and Challenges of H5P

Benefits of H5P	Challenges of H5P
Enhances Engagement	Learning Curve
Versatility	Planning and Development Time
Open Source	Integration Issues
Real-Time Feedback	Limited Customization
Scalability and reusability	Updating Content
Portability	

H5P Content Types (1)



Accordion

Create vertically stacked expandable items



Advent Calendar (b...

Create an advent calendar



Agamotto

Create a sequence of images that gradually



AR Scavenger

Augmented reality fun!



Arithmetic Quiz

Create time-based arithmetic quizzes



Audio Recorder

Create an audio recording



Chart

Quickly generate bar and pie charts



Collage

Create a collage of multiple images



Column

Column layout for H5P Content



Cornell Notes

Take notes using the Cornell system



Crossword

Create a crossword puzzle



Dialog Cards

Create text-based turning cards



Dictation

Create a dictation with instant feedback



Documentation Tool

Create a form wizard with text export



Drag and Drop

Create drag and drop tasks with images

H5P Content Types (2)



Drag the Words

Create text-based drag and drop tasks



Essay

Create essay with instant feedback



Fill in the Blanks

Create a task with missing words in a text



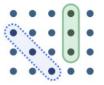
Find Multiple Hots...

Create many hotspots for users to find



Find the Hotspot

Create image hotspot for users to find



Find the words

Grid word search game



Flashcards

Create stylish and modern flashcards



Game Map

Create interactive game maps



Guess the Answer

Create an image with a question and answer



Iframe Embedder

Embed from a url or a set of files



Image Choice

Create a task were the alternatives are images



Image Hotspots

Create an image with multiple info hotspots

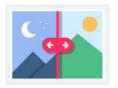


Image Juxtaposition

Create interactive images



Image pairing

Drag and drop image matching game



Image Sequencing

Place images in the correct order

H5P Content Types (3)



Image Slider

Easily create an Image Slider



Impressive Present...

Create a slideshow with parallax effects



Information Wall

Create searchable information panels



Interactive Book

Create courses, books or tests



KewAr Code

Create QR codes for different purposes



Mark the Words

Create a task where users highlight words



Memory Game

Create the classic image pairing game



Multiple Choice

Create flexible multiple choice questions



Personality Quiz

Create personality quizzes



Questionnaire

Create a questionnaire to receive feedback



Quiz (Question Set)

Create a sequence of various question types



Single Choice Set

Create questions with one correct answer



Sort the Paragraphs

Create a set of paragraphs to be sorted



Speak the Words

Answer a question using your voice



Speak the Words Set

A series of questions answered by speech

H5P Content Types (4)



Structure Strip

Interactive structure strip



Summary

Create tasks with a list of statements



Timeline

Create a timeline of events with multimedia



True/False Question

Create True/False questions



Virtual Tour (360)

Create interactive 360 environments



Complex fill the bla...

Fill in the missing words



Interactive Video

Create videos enriched with interactions



Course Presentation

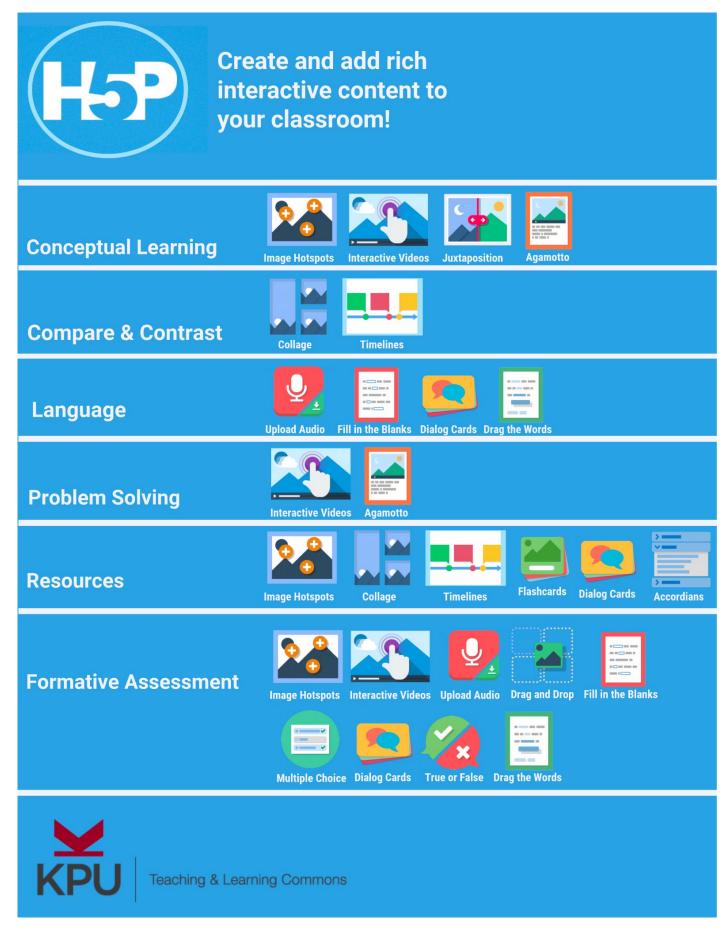
Create a presentation with interactive slides



Branching Scenario

Create dilemmas and self paced learning

H5P in Context (1)



https://www.kpu.ca/teaching-and-learning/technology/h5p (Kwantlen Polytechnic University, 2024, "H5P")

H5P in Context (2)

Quiz/Problem Solving

- Arithmetic Quiz
- Drag and Drop
- Drag The Words
- Fill In The Blanks
- Find The Words
- Guess The Answer
- Mark The Words
- Multiple Choice
- Questionnaire
- Quiz (Question Set)
- Single Choice Set
- Sort The Paragraphs
- True/False Question

- Agamotto
- Collage
- Find Multiple Hotspots
- Find The Hotspot
- Image Choice
- Image Juxtaposition
- Image Pairing
- Image Sequencing
- Image Slider

□ Multimedia

- Audio Recorder
- Branching Scenario
- Dictation
- Interactive Book
- Interactive Video
- Speak The Words
- Speak The Words Set

♀ Presentation

- Course Presentation
- Dialog Cards
- Documentation Tool
- Flashcards
- Essay

⊕ Fun

- Advent Calendar
- Crossword
- Memory Game
- Personality Quiz
- Timeline

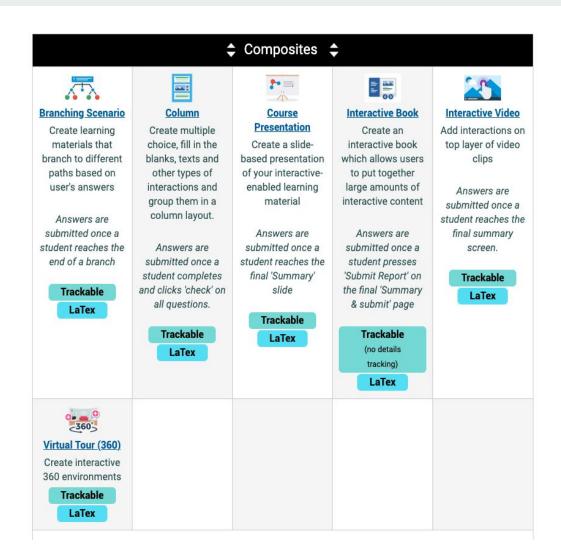
□ Display

- Accordion
- Chart
- Column
- KewAr Code
- Summary
- Tweeter Feed

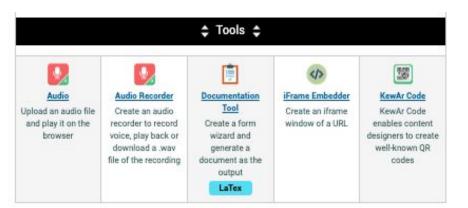
https://h5p.open.ubc.ca/h5p-examples/

(University of British Columbia, 2024, "H5P Open Hub - H5P Examples")

H5P in Context (3)







https://www.teaching.unsw.edu.au/h5p-content-types

(University of New South Wales, 2024, "H6P Content Types")

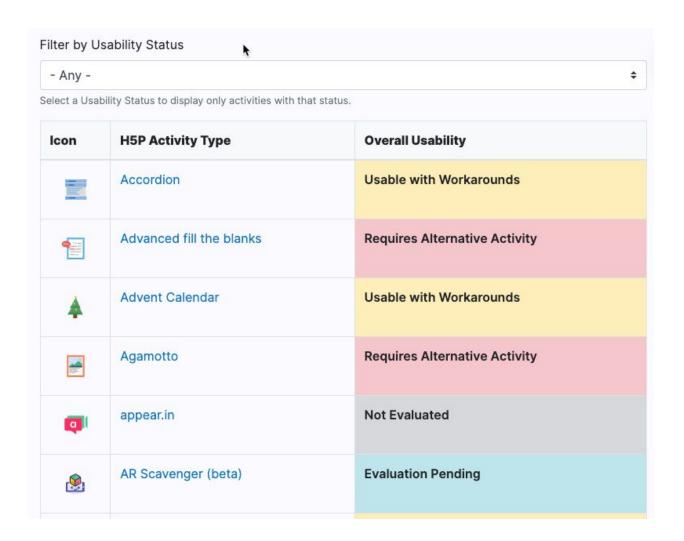


Some consideration when creating H5P

- 1. New content types: stay updated with h5p.org's H5P Examples and Downloads
- 2. Community engagement: Join the <u>H5P Community</u>
 Forum for support and feature request
- 3. Accessibility: Design H5P with accessibility in mind
 - H5P.com's Content Types Recommendations
 - <u>Librestudio's H5P Accessibility Guidelines</u>
- 4. Find, reuse or remix existing H5P
 - Pressbooks Directory
 - eCampusOntario H5P Catalogue
 - <u>LibreTexts Studio</u>
 - The H5P OER Hub (in progress)
- 5. Explore all the content types, experiment, and test!

Content Type	Accessible	Maintained by the core team	Browser Support	
Accordion	✓ Yes	✓ Yes	Full	
Advent Calendar	✓ Yes	X No	Full	
Agamotto 🗸 Yes		X No	Full	
AR Scavenger X No		XNo Full		
	 			

Content Types Recommendations (h5p.com)



Accessibility Guide (LibreTexts Studio)

Activity

H5P in your teaching and learning context



Think about the learning activities and formative assessments you have developed or are developing for your unique context. Describe your learning scenario and decide which of these H5P content types would work for these scenarios.

https://www.menti.com/aluf1ic29nmt

Join at menti.com

Use code 6607 3783

Where can I build H5P

- 1. BC Campus Pressbooks (https://pressbooks.bccampus.ca/wp-signup.php)
- 2. H5P.com (30 day free trial, data stored in the US)
- 3. <u>H5P.org</u> (limited functionality)
- 4. H5P OER Hub (https://h5p.org/oer-hub-coming)
- 5. Lumi Education (free desktop and cloud)
- 6. Institutional H5P Installation

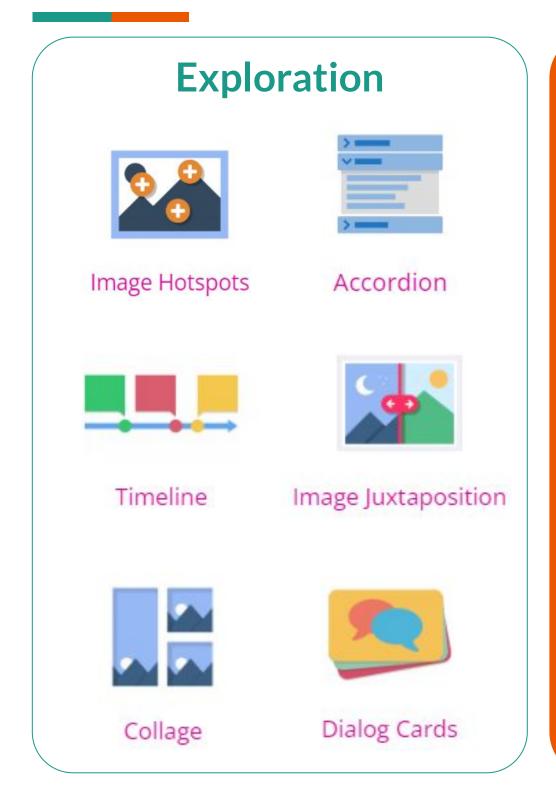
Account Creation

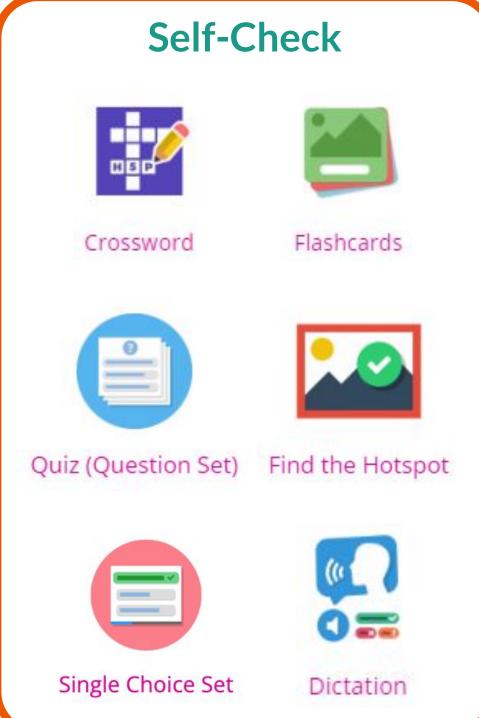
BC Campus Pressbooks -

(https://pressbooks.bccampus.ca/wp-signup.php)

Two-Step Verification - Check your email

H5P Activities Categories for Today's Walkthrough







Effective Feedback is

Effective formative feedback helps students learn by:

- providing clear, specific information about task performance
- including useful information (e.g. misconception, mistake, examples, guidance, resources) for learning
- Encouraging and motivating is good but focus should be on the task, not on the learner

(references: Shute, 2008, The H5P Kitchen,)

Various Feedback Features in H5P Question Types

#	H5P Type	Verification feedback (correct or incorrect)	Overall (scores based) feedback	Text-based (elaborated) feedback on correct/incorrect answer	Tips / hints
1	Multiple choice	Yes	Yes	Yes	Textual tip
2	Drag and Drop	Yes	Yes	No	No
3	Fill in the Blanks	Yes	Yes	No	Textual tip
4	Mark the Words	Yes	Yes	No	No
5	Drag the Words	Yes	Yes	Yes	Textual tip
6	True/False Question	Yes	Yes	Yes	No
7	Essay	Yes (checking for keywords)	Yes	Sample solution and its explanation; Custom feedback based on keyword included or missing	Help text (e.g. sentence starter)
8	Image Choice	Yes	Yes	No	Hover text
9	Question Set	Yes	Yes (additionally, video feedback possible)	Varied based on question type used (see above)	Varied based on question type used (see above)
10	Single Choice Set	Yes	Yes	No	No

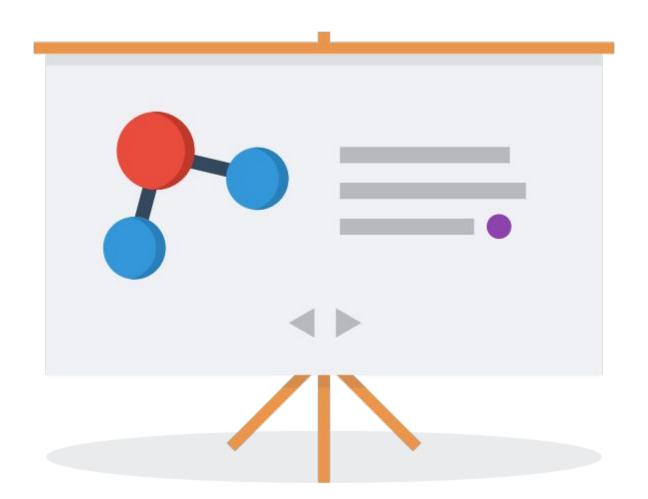
Activity

Hands-On H5P Walkthrough

30 min to walk-through and/or follow along



Question Set



Course Presentation

Publishing and Sharing H5P Content

- Embedding H5P Content
- Sharing and reusing H5P Content

Activity

Hands-On H5P Practice

or

Q&A

20 minutes practice

and

Q&A

Going Further - Wrapping up

- Choose your content type based on learning outcomes
- Draft your content in Word/Google Doc
- Consider formative feedback
- Design for reuse, remixing, and sharing
 - Reuse existing pieces of content as a starting point
- Consider accessibility
- Aim to create lasting resources in your field
- Give credit when necessary
- Click "Create/Update" to save content (content is not auto-saved)
- Experiment and practice

Resources

- Companion Blog
 - https://blogs.ubc.ca/h5pflo/resources/
- UBC H5P Symposium February 21 and 22, 9:00AM-2:45PM
 - https://events.ctlt.ubc.ca/events/2024-h5p-symposium/

References

- Brunet, M., Bonner, T., Kehoe, J., Roch, S., & eCampusOntario. (2023, October 31). When to use h5p. Mastering Open Ed Licensing Accessibility Creation and Publishing OER. https://ecampusontario.pressbooks.pub/masteringopened/chapter/when-to-use-h5p/
- Carr, W.H. (2021). Using the H5P digital platform as an active learning tool to build content-based critical thinking skills in an undergraduate immunology course. The Journal of Immunology.
- Freeman, S., Eddy, S. L., McDonough, M., Smith, M. K., Okoroafor, N., Jordt, H., & Wenderoth, M. P. (2014). Active learning increases student performance in science, engineering, and mathematics. PNAS Proceedings of the National Academy of Sciences of the United States of America, 111(23), 8410–8415. https://doi.org/10.1073/pnas.1319030111
- H5P. (n.d.). http://www.h5p.org/
- H5P content types. UNSW Teaching Staff Gateway. (n.d.). https://www.teaching.unsw.edu.au/h5p-content-types
- H5P examples. UBC's H5P Open Hub. (n.d.). https://h5p.open.ubc.ca/h5p-examples/
- Rekhari, S., & Sinnayah, P. (2018). H5P and innovation in anatomy and physiology teaching. In Research and development in higher education: [re] valuing higher education: volume 41: refereed papers from the 41st HERDSA Annual International Conference. 2-5 July 2018, Convention Centre, Adelaide (Vol. 41, pp. 191-205). Higher Education Research and Development Society of Australasia.
- Singleton, R., & Charlton, A. (2020). Creating H5P content for active learning. Pacific Journal of Technology Enhanced Learning, 2(1), 13-14.
- Sinnayah, P., Salcedo, A., & Rekhari, S. (2021). Reimagining physiology education with interactive content developed in H5P. Advances in physiology education, 45(1), 71–76. https://doi.org/10.1152/advan.00021.2020