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Build your own H5P learning object

Designing interactive
instructional materials for
information literacy

Marta Samokishyn, Ph.D. Cand.
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acknowledgement



BCcampus

Learning. Doing. Leading.

I would also like to acknowledge my colleague, Martha Attridge Bufton, Carleton University, and Alesya Moshchenskaya for their contribution and authorship of some of the OERs I will be showcasing.

workshop resources



tinyurl.com/LOEXH5P

who am I?

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what is your experience with H5Ps?

learning outcomes

- Design an interactive H5P learning object that addresses a specific information literacy learning objective;
- Apply fundamental instructional design principles when creating digital learning activities in H5P;
- Identify strategies to integrate and reuse H5P activities in instructional platforms (such as LMS courses or library research guides) to enhance student learning

agenda



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01

what are H5Ps?
pedagogical objectives & use

02

H5Ps in practice
different application contexts in IL &
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01

what are H5Ps?

pedagogical objectives & use

what are H5P?



H5P [HTML 5 Package]

A tool for creating interactive learning objects that can be reused, adapted, and embedded in learning environments.

core features of H5Ps

rich interactive content

Increased engagement on the static pages (research guides, LMSs, etc.)

reusable & adaptable OERs

partake in the community of educators, share & adapt content

built-in for formative assessment

low-stakes practice with immediate feedback, helping students check understanding before applying IL skills in their own work.



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example of a simple H5P activity

Omni Module: Keywords

Group the corresponding keywords together.

benefits

online learning

higher education

e-learning

advantages

post secondary

✓ Check

↻ Reuse

↔ Embed

H5P

types of H5P activities

Featured



Course Presentation
Create a presentation with interactive slides



Interactive Video
Create videos enriched with interactions



Memory Game
Create the classic image pairing game



Flashcards
Create stylish and modern flashcards



Guess the Answer
Create an image with a question and answer



Iframe Embedder
Embed from a url or a set of files



Image Hotspots
Create an image with multiple info hotspots



Image Juxtaposition
Create interactive images

Content Types

View all

Games

Multimedia

Questions

Social media



Accordion
Create vertically stacked expandable items



Agamotto
Create a sequence of images that gradually



Arithmetic Quiz
Create time-based arithmetic quizzes



Audio Recorder
Create an audio recording



Chart
Quickly generate bar and pie charts



Image Sequencing
Place images in the correct order



Impressive Present...
Create a slideshow with parallax effects



Interactive Video
Create videos enriched with interactions



Mark the Words
Create a task where users highlight words



Memory Game
Create the classic image pairing game



Collage
Create a collage of multiple images



Column
Column layout for H5P Content



Course Presentation
Create a presentation with interactive slides



Dialog Cards
Create text-based turning cards



Documentation Tool
Create a form wizard with text export



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



Drag and Drop
Create drag and drop tasks with images



Drag the Words
Create text-based drag and drop tasks



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



Speak the Words
Answer a question using your voice



Summary
Create tasks with a list of statements



Timeline
Create a timeline of events with multimedia



True/False Question
Create True/False questions



Twitter User Feed
Show your Twitter feed with H5P



Photo by [Nikita Kachanovsky](#) on [Unsplash](#)

benefits of **interactivity** for students

additional benefits of H5Ps

Engagement & Curiosity: Actively involves learners through exploration and problem-solving to solve engagement.

Independent & Self-Paced: Ideal for asynchronous learning.

Improved Retention: Chunking information and incorporating formative assessments enhance understanding and memory.

Inclusive & Flexible: Active learning materials offer flexibility, allowing students to progress at their own pace.

Collaborative Learning: When paired with LMS tools or group activities, it encourages relational and interactive learning.

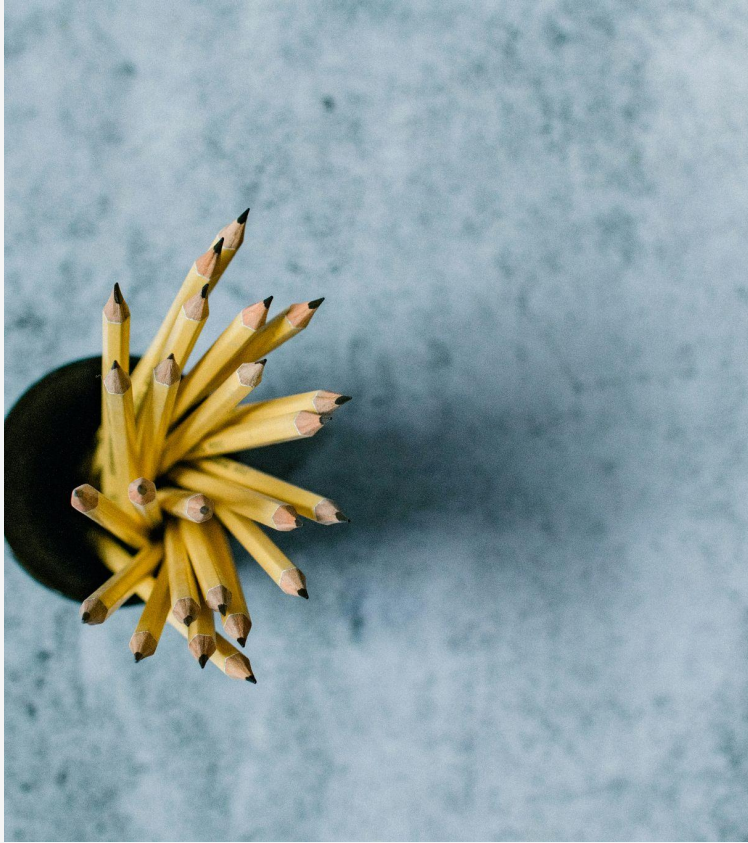


Photo by [Kelly Sikkema](#) on [Unsplash](#)

“While other types of learning may allow an individual to recall facts, concepts, or procedures, deeper learning allows the individual to transfer what was learned to solve new problems.”

—Jay McTighe et al., 2020



02

H5Ps in practice

different application contexts in IL
& best practices

where to **use H5Ps**

stand-alone activity

Ex. during IL session to practice IL concepts.

pressbooks

Ex. real-time feedback based on the reading material

formative assessment

Ex. students check their knowledge

LMS

Ex. integrated into the course for practice

research guides

Ex. floormaps, timelines, quizzes

students' work

Ex. students as co-creators of the OERs

types of H5Ps for different purposes

Tools for Formative Assessment

Multiple Choice, True/False Fill in the Blanks, Mark the Words, Drag and Drop

Tools for Unit Review

Course Presentation, Flashcards, Quiz, Summary

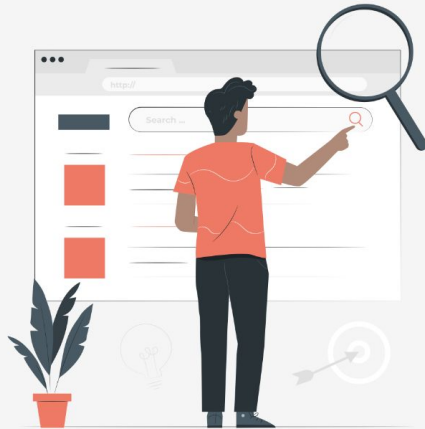
Tools for Multimedia Integration

Interactive Videos, Image Hotspots

Tools for Student Submissions

Questionnaire, Audio Recorder

course presentation



Search strategies: Boolean operators

Credit: Romeo, R. et al. (2022). Developing research questions and creating keywords. UCLA library, WI+RE.

examples of the H5Ps in Pressbooks



ALGORITHMIC AWARENESS TOOLKIT

*Teaching Algorithmic Literacy in Academic
Libraries & Beyond*



Instructor's Guide

Marta Samokishyn



image slider

Compare Human and AI generated art

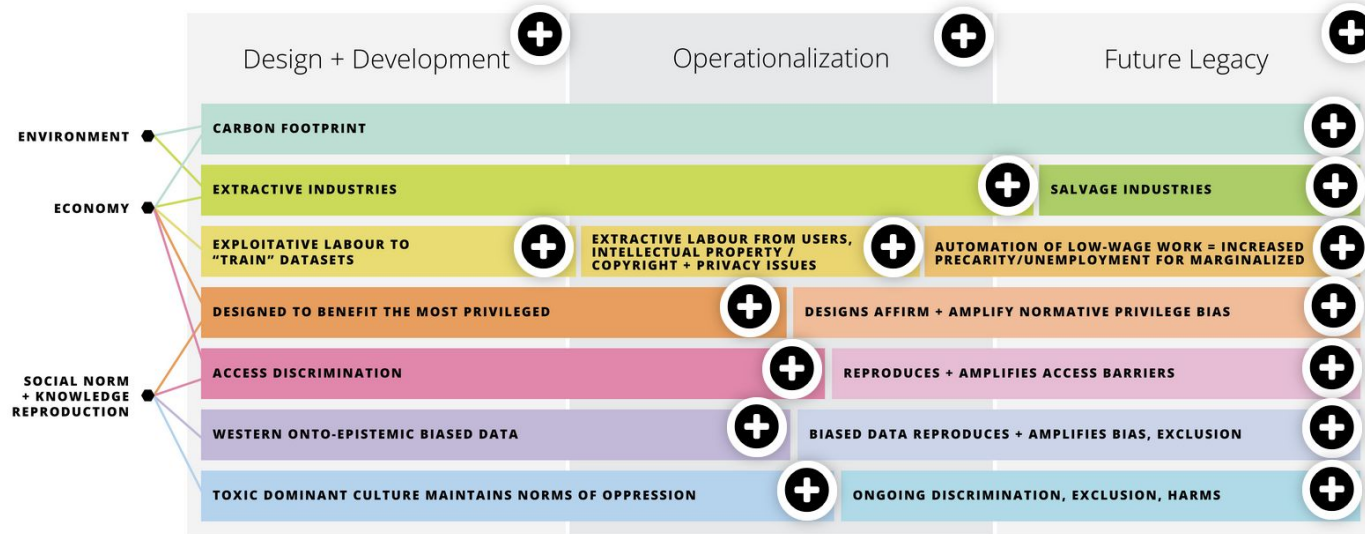


Reuse <> Embed

H-P

image hotspot

Some Harm Considerations of Large Language Models (LLMs)



interactive book

 **Step 1: Take Notes of Interesting Moments** 1 / 4   

Formal Scene Analysis ...

▼ Step 1: Take Note... ●

Activity Overview

Step 1: Note Interesting ...

▶ Step 2: Identify Ke... ○

▶ Step 3: Analyze a... ○

 Summary & submit

Activity Overview

The following is a 4 minute and 43 second clip from *The Good, the Bad, and the Ugly* that offers a range of film techniques. You will watch this clip several times in the course of this activity to begin exercising your mind to think critically about all the elements of a film, to practice identifying technical film techniques and terms, and to understand what a scene analysis is and how it combines the identification of film techniques with critical analysis to create a strong argument about what this particular segment of the film represents.

Step 1: Note Interesting Elements

As you will do with each of the films you will watch during the course of the semester, your first step is to watch the entire film and take note of any scenes and/or elements that you find particularly interesting, especially as it relates to key topics and themes that we will be discussing in class. For this particular activity, we have already identified a scene of interest.

Watch the entire clip attached below one time from beginning to end and jot down three things on a scrap piece of paper or in a separate document that you find interesting or particularly striking about the clip. This could be anything from sound, to the acting performances, to the location or space, etc. When you are finished, copy your three points of interest in the space provided beneath the video clip.

interactive video

Evaluating Search Results

TOO MANY RESULTS?



742 results from Web of Science Core Collection for:

🔍 mice OR mouse OR "mus musculus" (All Fields) and "social behavior" (All Fields) and aggressi* (All Fields)

[+ Add Keywords](#) Quick add keywords: < + SOCIAL BEHAVIOR + PEROMYSCUS CALIFORNICUS

Publications You may also like...

Refine results

Search within results... 🔍

☐ 0/742 [Add To Marked List](#) [Export](#) ▾

Maternal behavior of house mice of Temperate...

Multiple Choice Question re: Focus Your Results 

- Refine your topic
- AND in another key concept
- Apply limits to search



03

design principles

learners' context

H5Ps & pedagogical practice

When designing H5P activities, align them with the learning objective and outcomes in a specific unit or course and choose the content type that aligns with your instructional goal.

Step 1. Explore a variety of different content types and H5Ps examples.

Step 2. Review your existing or create a new learning objective & outcomes for activity.

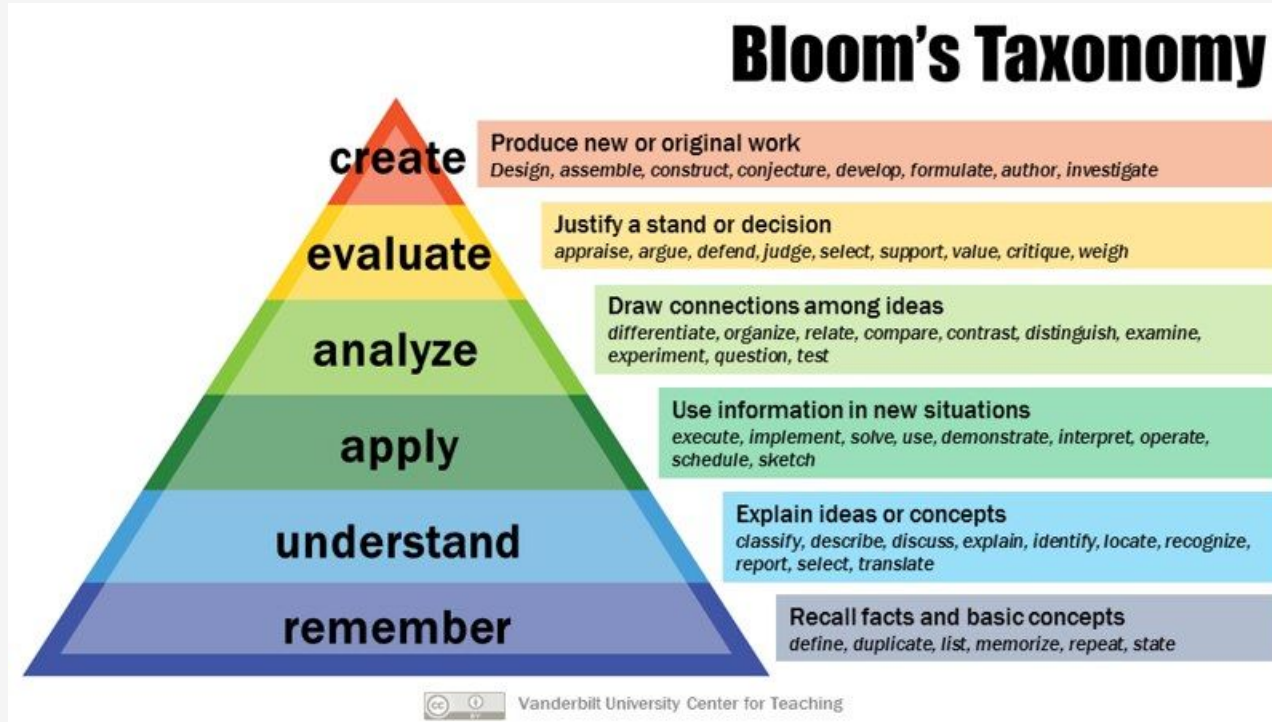
Step 3. Align the content type with your specific learning objective for the module.

pedagogical impact

A strong H5P helps learners:

- test their understanding of IL concepts
- practise and apply their knowledge or learn new skill
- receive feedback
- transfer learning to their own work

Bloom's taxonomy & H5P design



Alignment with learning objectives

Learning objective	Possible H5P activity content type
<i>Identify</i> strategies to avoid plagiarism: direct citations, paraphrasing, summarizing	<u>Dialog card</u> that provide definitions and text-based turning cards for students to check their understanding
<i>Apply</i> correct Boolean operators in specific situations	<u>Drag the words</u> can help students test their knowledge of the Boolean operators
<i>Understand</i> how to successfully apply search strategies in ATLA database	<u>Find Multiple Hotspot</u> allows students to identify specific areas that might have incorrectly applied search strategies
<i>Recall / Test</i> their knowledg of the APA citation style	<u>Multiple Choice</u> will help students to test their knowledge of the citation style

Best practices

A strong H5P activity should:

- begin with a clear IL learning outcome
- ask learners to do something meaningful
- keep the task small and focused
- include feedback that explains why
- avoid interaction for its own sake
- support reuse, adaptation, and accessibility
- be tested from a learner's perspective



04

H5P design challenge

tools & resources

Step 1. Create an account

Create an account on a H5P platform:

[Studio.Libretexts.org](https://studio.libretexts.org)

Step 2. Choose / reuse an activity

Look at the [H5Ps examples](#) and start planning your activity by using the templates provided. You can also resume/adapt existing H5Ps by selecting Reuse button on the bottom left corner.

Step 3. Gather your content

Having your content, such as video/audio, text, images ready before your design challenge allows you to focus on building the activity without interruption.

Use Canva or other similar tools to create images, if needed.

Step 4. Feedback & testing

Provide constructive feedback for students' self-assessment and don't forget to test your H5P activity from a student's perspective. Ask your colleagues to test them as well.

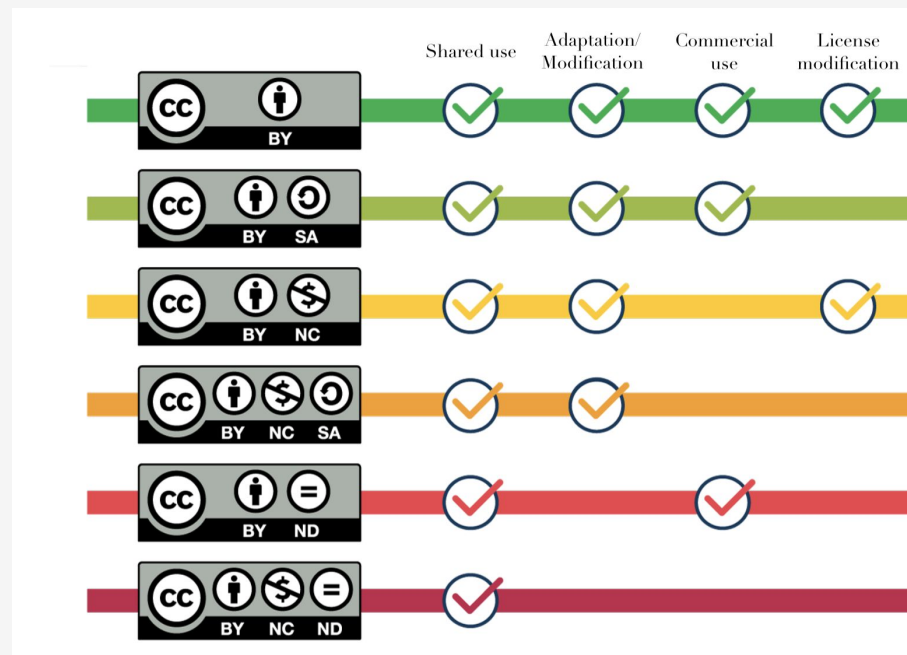
Types of feedback:

- Corrective (when incorrect answer is selected; add hint if needed)
- Reinforcing (explaining why correct sources are correct)

Step 5: Create a license

You can make it as open as you wish, providing the H5P you are adapting from does not have a ShareAlike condition (e.g., CC BY-SA 4.0).

If it does, you have to apply the same license as the activity you are adapting from.



Step 6: Accessibility considerations

- Predictable and repeated language and layout & clear instructions
- Provide closed captions, audio descriptions, and a transcript for all video content and alt text for images
- Use high-contrast color combinations for text and backgrounds.
- Avoid cognitive and sensory overload

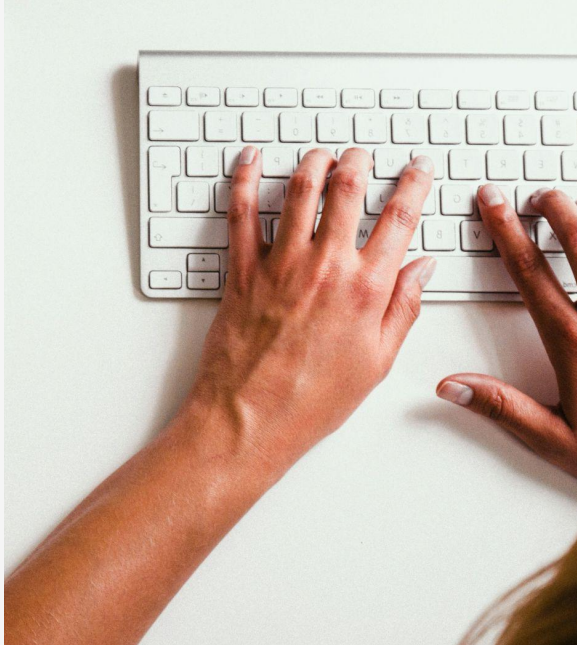
Review [content types accessibility](#) and [H5P accessibility statement](#) and [April 2026 accessibility report](#).

Note: some activities are not fully accessible

Step 7. Embed your H5Ps

Embed your H5Ps into an existing open textbook, LMS course, libguide, or use as a standalone activity by clicking on Embed, and copying and pasting the code provided.

next steps



- Experiment with different types of H5Ps,
- Review training documentation
- Share & promote your work
- Contact IDs at your institutions

information literacy open textbooks with H5Ps

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Attridge Bufton, M., & Samokishyn, M. (2022). *Critical foundations in undergraduate research. A reading guide*.
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<https://pressbooks.bccampus.ca/algorithmicawarenesstoolkit/>

Thank you!

Do you have any questions?

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tinyurl.com/LOEXH5P



references & resources

Template: Slido
Images: Unsplash

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