Crafting online learning experiences
Learning design fundamentals and H5P for Pressbooks

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WE ARE ON KAURNA LAND

Flinders University acknowledges the Traditional Owners and Custodians of the lands on which its campuses are located, these are the Traditional Lands of the Arrernte, Dagoman, First Nations of the South East, First Peoples of the River Murray & Mallee region, Jawoyn, Kaurna, Larrakia, Ngadjuri, Ngarrindjeri, Ramindjeri, Warumungu, Wardaman and Yolngu people. We honour their Elders past, present and emerging.

Today, over **400 ABORIGINAL AND TORRES STRAIT ISLANDER STUDENTS** are enrolled in courses at Flinders University.

Flinders University

Who am I?

- Librarian

- Programmer

- Archaeologist

Today's session

- Understanding of cognitive load
- Understanding of learning design principles
- H5P
  - What is it?
  - What can it do?
  - H5P activity creation demo
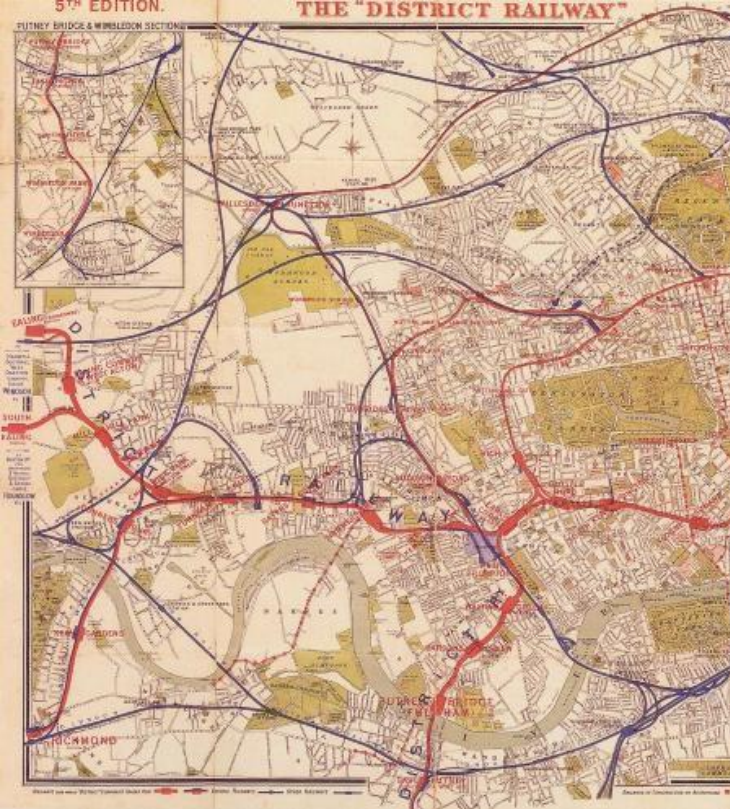
- Time: 30-40 minutes

Cognitive load

Cognitive load : humans have a limited mental capacity in terms of working memory (Bolkan 2016).
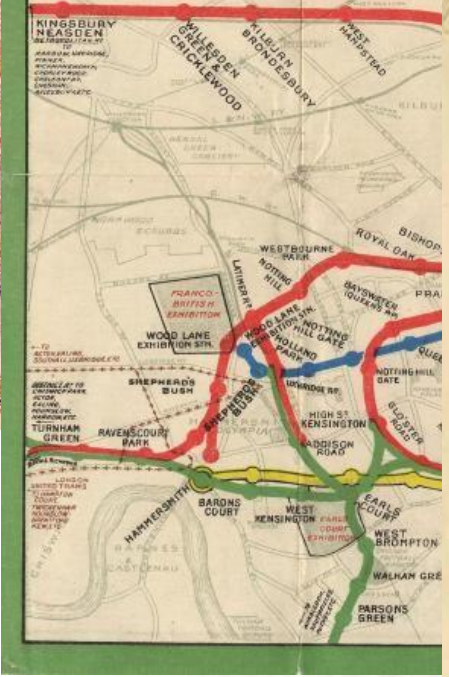
Intrinsic vs. Extraneous

Good design helps to minimise extraneous cognitive load for users.

1895

1908

1933

London Underground map

What is learning design?

"Simply a process for helping you to create effective training in an efficient manner. It is a system…that help*(s)* you ask the right questions, make the right decisions, and produce a product that is as useful and useable as your situation requires and allows."

- (Piskurich, 2015)

Learning design principles

- Determine learning outcomes first before anything.

- Keep your audience in mind at all times

- Don't stuff the space

- Chunking

- Clear, concise language. Explain jargon

Learning design principles

- Explicitly state learning outcomes at the start of the book and each chapter.

- Time on task stated.

- Review at end of the chapter.

- Use consistent unifying elements
  - Consistent colour coding (e.g. All examples in boxes of a certain colour)
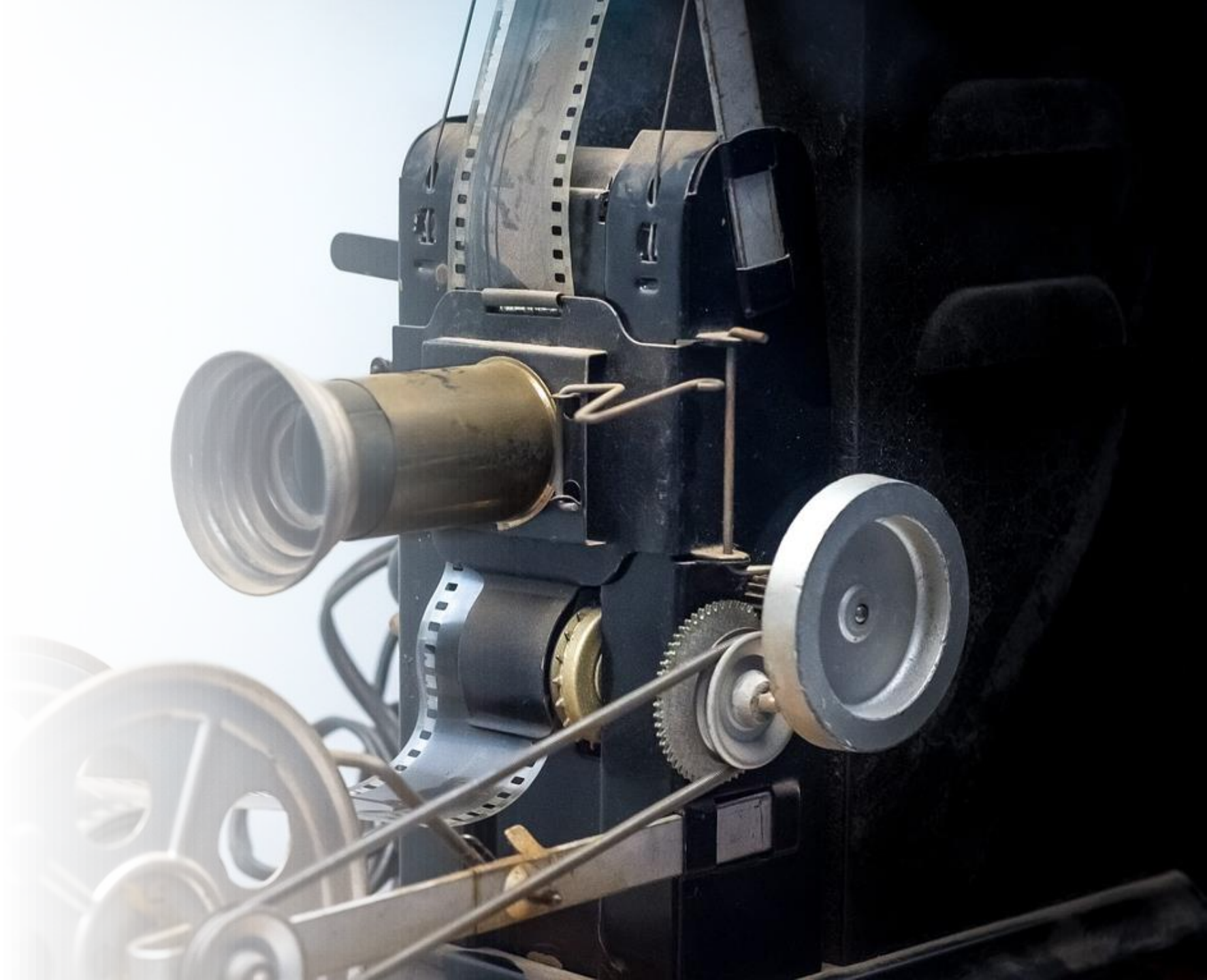 - Highlight tips, questions etc. with graphical icons.
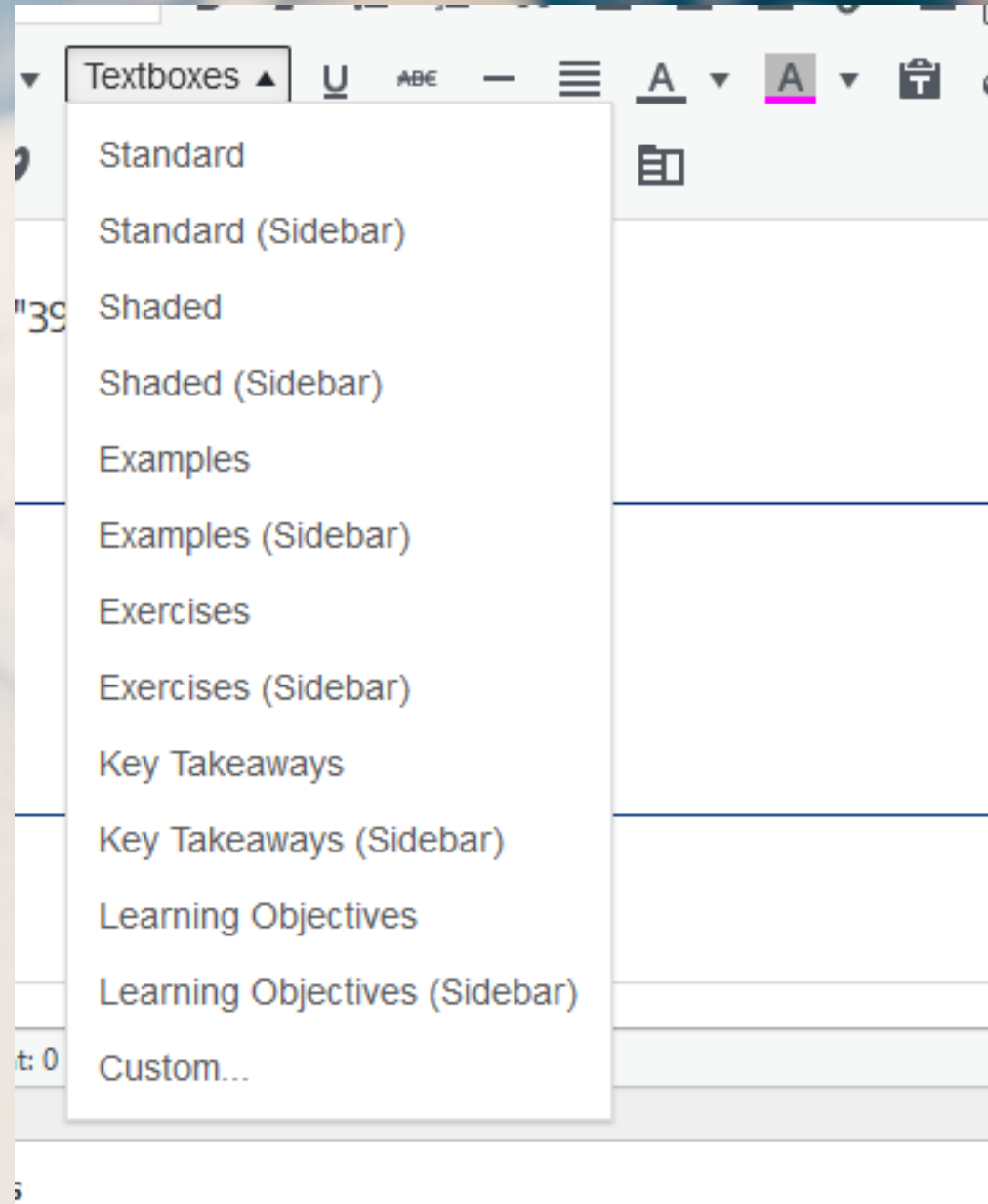
Font and spacing

- 80% students preferred double spaced text.
- Sans serif fonts reduce cognitive load (Hojjati & Muniandy, 2014).
- **Yes**: Arial or Calibri
- **No**: Times New Roman
- **Hell no:** Comic Sans

Videos

- Keep them under 5 minutes
- Provide transcripts
- Allow for downloads if possible
- Slow, clear narration

Evaluation

- How do you know if something is effective or working well?
- An often overlooked but essential part of the design process.

Active learning

- Active vs. passive learning

- Intrinsic and extraneous cognitive load can be reduced through interactivity and active learning (Yiin & Chern, 2023).
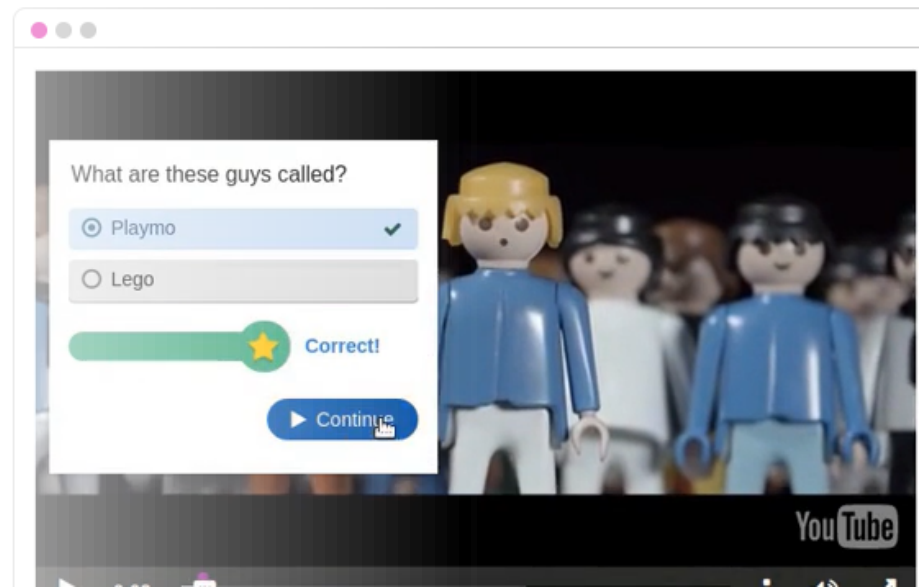
H5P

- Suite of tools and activities to increase interactivity and promote active learning.
- Native LMS support (Moodle) or via LTI (Canvas, Blackboard).
- It is not a fix for all your problems!
- Should always be used with a purpose.

Accordion	**Advent Calendar (...**	**Agamotto**	**AR Scavenger**	**Arithmetic Quiz**
Create vertically stacked expandable items	Create an advent calendar	Create a sequence of images that gradually	Augmented reality fun!	Create time-based arithmetic quizzes

Audio Recorder	**Chart**	**Collage**	**Column**	**Cornell Notes**
Create an audio recording	Quickly generate bar and pie charts	Create a collage of multiple images	Column layout for H5P Content	Take notes using the Cornell system

Crossword	**Dialog Cards**	**Dictation**	**Documentation Tool**	**Drag and Drop**
Create a crossword puzzle	Create text-based turning cards	Create a dictation with instant feedback	Create a form wizard with text export	Create drag and drop tasks with images

Drag the Words	**Essay**	**Fill in the Blanks**	**Find Multiple Hots...**	**Find the Hotspot**
Create text-based drag and drop tasks	Create essay with instant feedback	Create a task with missing words in a text	Create many hotspots for users to find	Create image hotspot for users to find

Find the words	**Flashcards**	**Guess the Answer**	**Iframe Embedder**	**Image Choice**
Grid word search game	Create stylish and modern flashcards	Create an image with a question and answer	Embed from a url or a set of files	Create a task were the alternatives are images

Image Hotspots	**Image Juxtaposition**	**Image pairing**	**Image Sequencing**	**Image Slider**
Create an image with multiple info hotspots	Create interactive images	Drag and drop image matching game	Place images in the correct order	Easily create an Image Slider

Impressive Presen...	**Information Wall**	**Interactive Book**	**KewAr Code**	**Mark the Words**
Create a slideshow with parallax effects	Create searchable information panels	Create courses, books or tests	Create QR codes for different purposes	Create a task where users highlight words

Memory Game	**Multiple Choice**	**Personality Quiz**	**Questionnaire**	**Quiz (Question Set)**
Create the classic image pairing game	Create flexible multiple choice questions	Create personality quizzes	Create a questionnaire to receive feedback	Create a sequence of various question types

Single Choice Set	**Sort the Paragraphs**	**Speak the Words**	**Speak the Words Set**	**Structure Strip**
Create questions with one correct answer	Create a set of paragraphs to be sorted	Answer a question using your voice	A series of questions answered by speech	Interactive structure strip

Summary	**Timeline**	**True/False Question**	**Virtual Tour (360)**	**Complex fill the bl...**
Create tasks with a list of statements	Create a timeline of events with multimedia	Create True/False questions	Create interactive 360 environments	Fill in the missing words

Interactive Video	**Course Presentation**	**Branching Scenario**		
Create videos enriched with interactions	Create a presentation with interactive slides	Create dilemmas and self paced learning		

Common uses of H5P

- Knowledge checks

Which of the following specialties might focus on studying all the structures of the ankle and foot?

○ systemic anatomy

○ microscopic anatomy

○ muscle anatomy

○ regional anatomy

✔ Check

Describe how climate change will impact farming practices in developing countries.

Of which countries are Berlin, Washington, Beijing, Canberra and Brasilia the capitals?

_____ is the capital of Brazil.

_____ is the capital of the US.

_____ is the capital of Germany.

_____ is the capital of China.

_____ is the capital of Australia.

| Brasilia |
| Canberra |
| Washington |
| Berlin |
| Beijing |

Common uses of H5P

- Knowledge checks

- Break up large chunks of information

> **Do I have to capture results from all databases on the same day?**

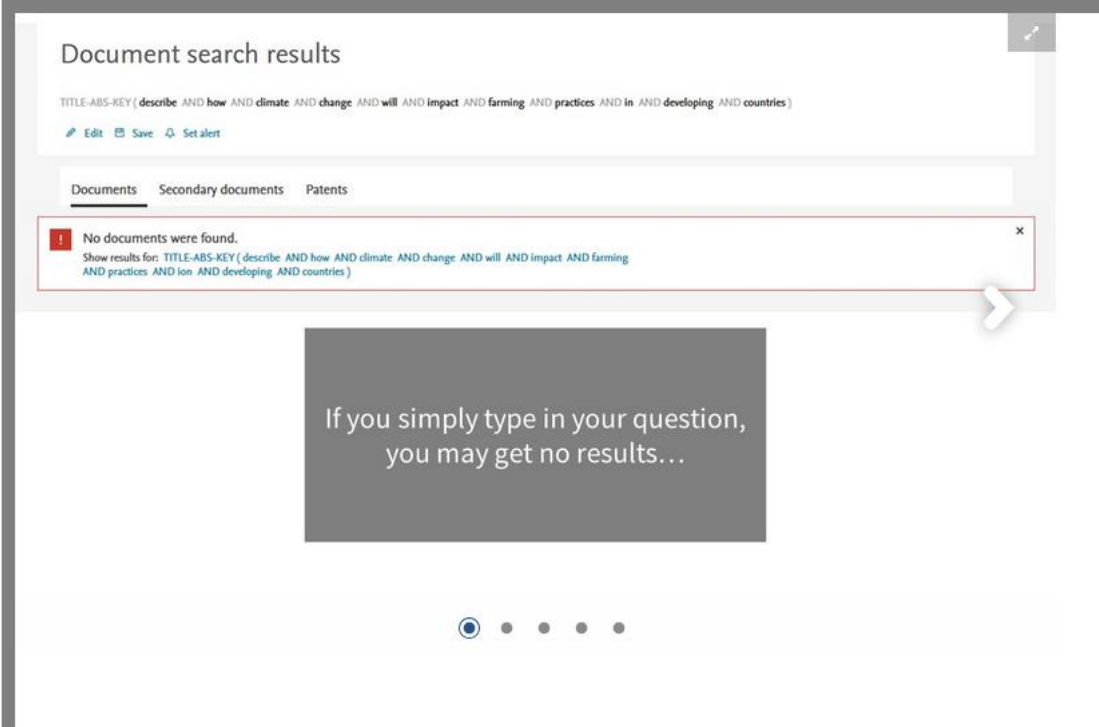> **Is there a way to run the same search in all databases at the same time?**

No.

Even if databases are available on the same platform (e.g. Medline and PsycINFO on OVID), it is recommended that you search each database separately. This is because individual databases index publications differently and use different search syntax and subject headings.

Instead, your original search needs to be translated so that it can be interpreted by other databases.

> **Do all databases export to reference management software in the same way?**

> **Can I export all results at the same time?**

exported?

Document search results

TITLE-ABS-KEY (describe AND how AND climate AND change AND will AND impact AND farming AND practices AND in AND developing AND countries)

✏ Edit 🖫 Save 🔔 Set alert

Documents   Secondary documents   Patents

❗ No documents were found.
Show results for: TITLE-ABS-KEY (describe AND how AND climate AND change AND will AND impact AND farming AND practices AND ion AND developing AND countries)

If you simply type in your question, you may get no results…

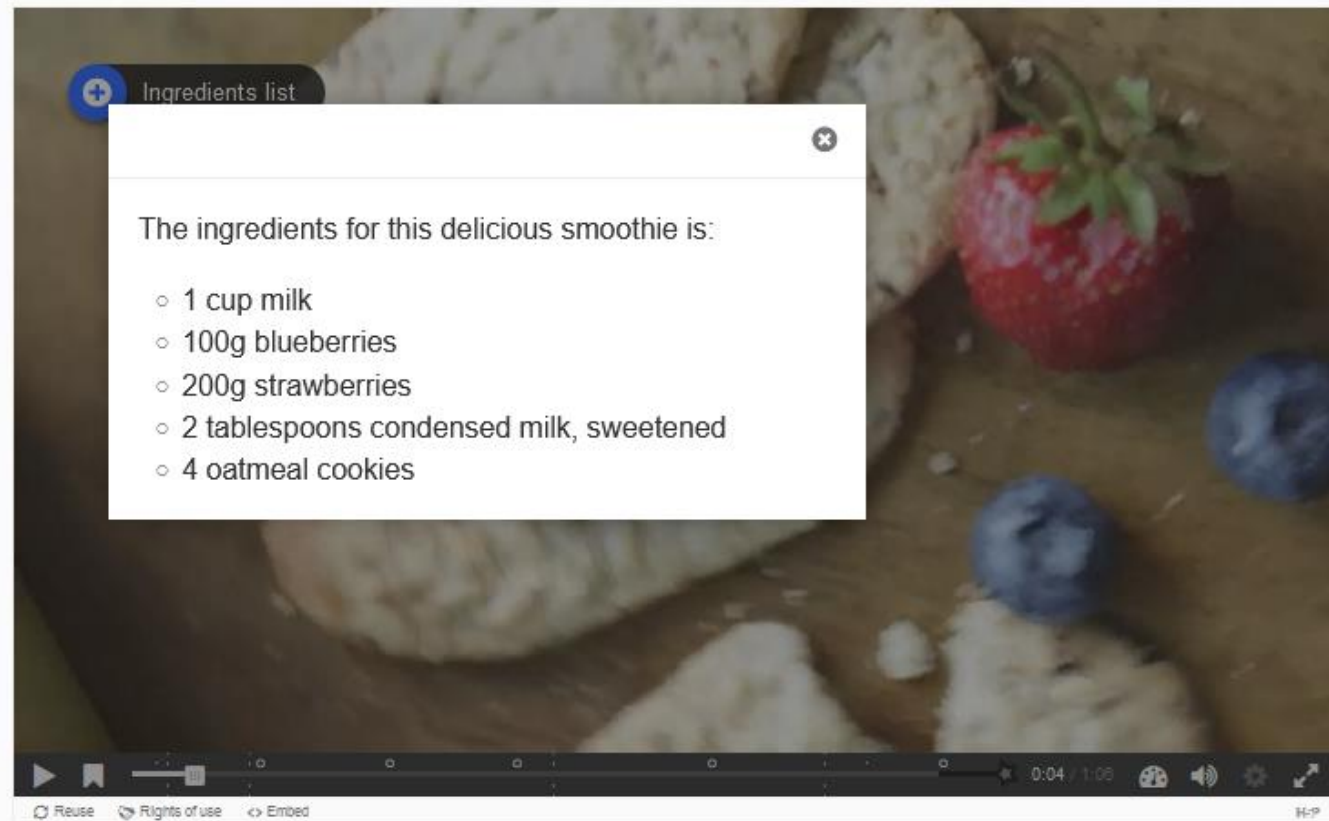● ● ● ● ●

Create
Richer HTML5 Conten
Existing Publishing Pl

Share
Content Seamlessly A
Any H5P Capable Site

Common uses of H5P

- Knowledge checks

- Break up large chunks of information

- Increasing interactivity and active learning

Where to go for help?

- H5P help documentation

- Youtube videos

- Your institution's learning designers
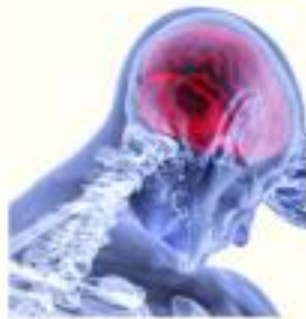
FUNDAMENTALS OF ANATOMY & PHYSIOLOGY

ANNA CHRUŚCIK, KATE KAUTER, LOUISA WINDUS & ELIZA WHITESIDE

AUSTRALIAN EDITION

H5P activity creation demo

References

Bolkan, S. (2016). The importance of instructor clarity and its effect on student learning: Facilitating elaboration by reducing cognitive load. *Communication Reports, 29*(3), 152-162.

Hojjati, N., & Muniandy, B. (2014). The Effects of Font Type and Spacing of Text for Online Readability and Performance. Contemporary Educational Technology, 5(2), 161-174.

Piskurich, G. M. (2015) Rapid instructional design: learning ID fast and right, third edition. 3rd ed. Wiley.

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