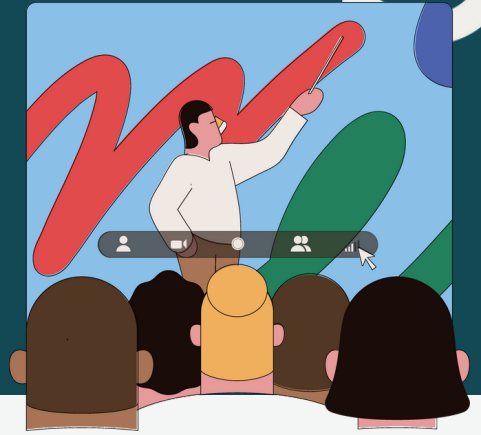# Micro-learning

## Cognitive Load Theory (CLT) basics

### Two types of memory

In our brains, we have two types of memory:

**Working Memory**: processes new information, is quite limited and can only handle so much before it is overloaded - small capacity.

**Long-term memory:** this is where we store and retrieve information. Organised into schemas (sort of like a filing cabinet) - large capacity.

**Key idea:** Avoid overloading working memory to increase the the amount of information that transfers to long-term memory.

### Three types of cognitive load

CLT proposes that there are three types of cognitive load:

**Intrinsic Load:** the inherent level of complexity in the information.

**Extraneous Load:** comes from non-relevant elements that require mental processing (e.g. decorative pictures, animations, loud music, non-relevant animations).

**Germane Load:** comes from the effort needed to process information into schemas in long-term memory.

**Key idea:** Cognitive overload happens when the combination of intrinsic, extraneous and germane loads becomes overwhelming.
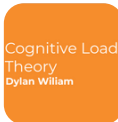
### Quick tips to reduce cognitive load

- **Remove non-essential content** - additional graphics, background music, non-relevant animations.
- **Chunk content into smaller parts** - break large slabs of text into smaller parts at a time.
- **Place words closely to relevant graphics** - diagrams that help draw connections between text and image.
- **Lower the sound level of background music** - in a narrated animation, or in general during class.
- **Present some information visually and some verbally** - don't narrate word for word, allow the visual channel and audio channels to take turns in processing information.

# Deeper learning

## Cognitive Load Theory

## Learn on EC Premium:

| Name ⌄ | | Learning Partner ⌄ | Duration ⌄ |
|---|---|---|---|
| ☐ | Cognitive Load Theory and Multimedia Learning<br>Video | EC by Go1 | 15 mins |
| ☐ | Dylan Wiliam: Cognitive Load Theory<br>Interactive | Dylan Wiliam | 50 mins |
| ☐ | Science of Learning \| Evidence-Informed Teaching Strategies an...<br>Interactive | Learning Made Easy Global | 50 mins |
| ☐ | Michael Griffin: Teaching for Metacognition<br>Interactive | Michael Griffin | 6.5 hrs |
| ☐ | Kim Marshall: What Makes Learning Stick<br>Interactive | Kim Marshall | 2 hrs |

Reach out to the EC team to work alongside you and map learning to your existing PL priorities.

✉ contact us