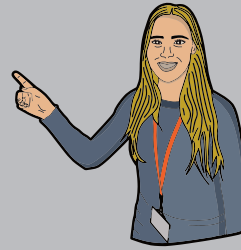


Cognitive Load | Pt 2

SUMMARY

What Every Teacher Needs to Know
by Jade Pearce | illustrated by Zeph Bennett



Part 2

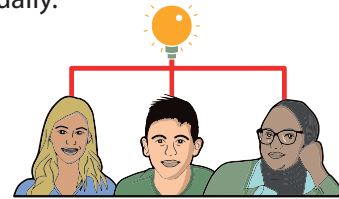
Chapter 22

Goal Free Effect



Goal-free problems reduce this cognitive load as pupils do not have to hold the goal, where they are in relation to the goal and what needs to be done next to achieve the goal in their working memories.

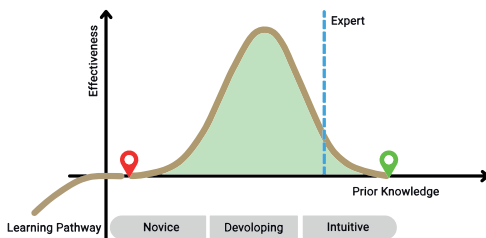
Collaborative learning combines pupils' working memory capacity. This means collaborative learning can reduce cognitive load when compared to trying to complete complex tasks individually.



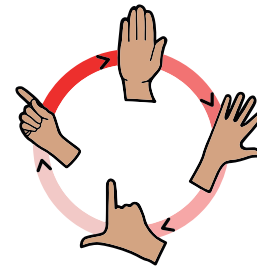
The Collective Working Memory Effect

The Expertise Reversal Effect

The strategies that reduce cognitive load for novices become ineffective or can have a negative impact on learning for more expert learners. Here, minimally guided instruction and problem-solving are more effective.



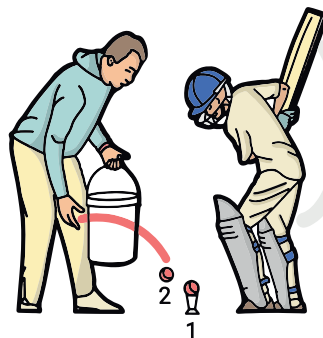
Using human movement to learn can lower cognitive load. This includes gesture and physical object manipulation.



Human Movement Effect

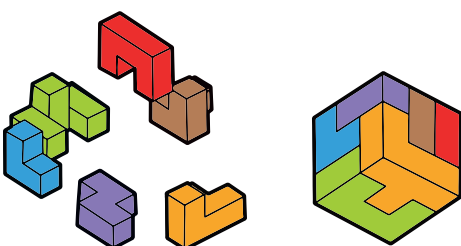
Pre-teaching

Pre-teaching of vocabulary, knowledge or skills can reduce intrinsic cognitive load by reducing the amount of new material experienced at a time.



A part-whole approach teaches each element of a skill or body of knowledge individually, before putting them together. A whole-part approach is where an overview is provided before practice of individual elements, may also be beneficial in showing pupils the 'big picture'.

Segmentation



Breaking up material or a task into smaller chunks can reduce cognitive load.

Sequencing

