

# Cognitive load theory: Research that teachers really need to understand

The CESE literature review 'Cognitive load theory: Research that teachers really need to understand' is also a MyPL course  
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## About cognitive load theory

Dylan Wiliam has described cognitive load theory as 'the single most important thing for teachers to know'. Grounded in a robust evidence base, cognitive load theory provides support for explicit models of instruction.

The CESE literature review 'Cognitive load theory: Research that teachers really need to understand' explains the principles behind cognitive load theory and how it assists the human brain to learn and store knowledge.

### Main findings

- The human brain can only deal with a small amount of new information at once, but it can hold a very large amount of stored information.
- Cognitive load theory provides support for explicit models of instruction.
- Research from cognitive load theory has produced a number of instructional techniques that are directly transferable to the classroom.

## How memory works:



### Small amounts of short term information are processed in the working memory

The average person can only hold about four 'chunks' of information in their working memory at once.



### Large amounts of information are stored semi-permanently in the long-term memory

Information is stored in 'schemas' which provide a system for organising and storing knowledge.



### Working memory can become overloaded

If a student's working memory is overloaded, they may not understand the content being taught.



### Memory overload can be prevented

With practice, and strategies to minimise cognitive load, information can be automatically recalled from long-term memory, freeing up the working memory to learn new information.

## About CESE

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