



**#3: WORKING MEMORY AND COGNITIVE LOAD**

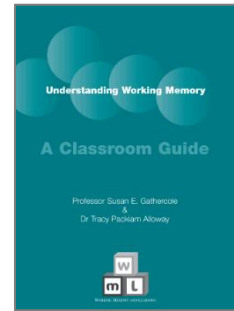
**WORKING MEMORY:** MEMORY THAT INVOLVES STORING, FOCUSING ATTENTION ON, AND MANIPULATING INFORMATION FOR A RELATIVELY SHORT PERIOD OF TIME (SUCH AS A FEW SECONDS)

**COGNITIVE LOAD:** COGNITIVE LOAD THEORY, DEVELOPED FROM THE WORK OF JOHN SWELLER, IS BASED ON THE TYPES OF INFORMATION HELD IN WORKING-MEMORY AT ANY ONE TIME. THESE ARE KNOWN AS INTRINSIC LOAD, EXTRANEIOUS LOAD AND GERMANE LOAD AND, ADDED TOGETHER, MAKE UP THE CAPACITY OF THE WORKING MEMORY.

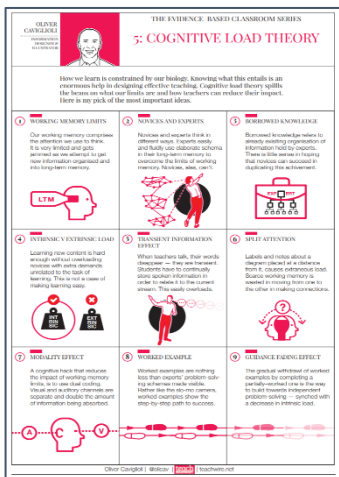
**WORKING MEMORY**

'Many of the learning activities that children are engaged with in the classroom, whether related to reading, mathematics, science, or other areas of the curriculum, impose quite considerable burdens on **working memory**. Activities often require the child to hold in mind some information (for example, a sentence to be written down) while doing something that for them is mentally challenging (such as spelling the individual words in the sentence).

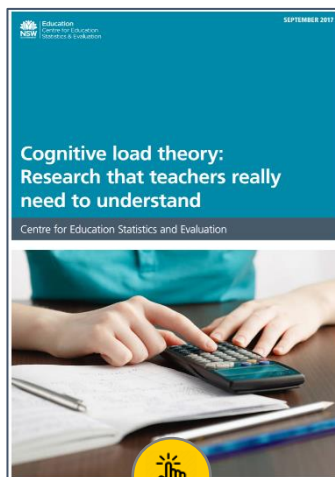
*Understanding working memory – a classroom guide, Gathercole and Alloway, 2007*



**COGNITIVE LOAD:** COGNITIVE LOAD THEORY IS A THEORY OF HOW THE HUMAN BRAIN LEARNS AND STORES KNOWLEDGE. IT WAS RECENTLY DESCRIBED BY BRITISH EDUCATIONALIST DYLAN WILIAM 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.



**LINKED POSTER**  
9 IMPORTANT IDEAS WITHIN  
COGNITIVE LOAD THEORY  
(OLIVER CAVIGLIOLI)



**LINKED PODCAST**  
COGNITIVE LOAD THEORY:  
RESEARCH THAT  
TEACHERS REALLY NEED  
TO UNDERSTAND (33 MINS)



**5 LINKED BLOGS**

**FOUR WAYS COGNITIVE  
LOAD THEORY HAS  
CHANGED MY TEACHING**  
(GREG ASHMAN)



**COGNITIVE LOAD THEORY  
AND ITS APPLICATION IN  
THE CLASSROOM**  
(DOMINIC SHIBLI AND  
RACHEL WEST)



**COGNITIVE LOAD THEORY  
AND WHAT IT MEANS FOR  
CLASSROOM TEACHERS**  
(ANDY THARBY)



**USING COGNITIVE LOAD  
THEORY TO IMPROVE  
SLIDESHOW  
PRESENTATIONS**  
(ANDY THARBY)



**4 PROBLEMS COGNITIVE  
LOAD THEORY STILL  
NEEDS TO SORT OUT**  
(INNER DRIVE)

