

Pedagogy Newsletter #44

29th November 2019

Dear all

During a recent MITA course I went on, discussion moved to the working memory and cognitive overload. This has been part of our pedagogical discussion for a while and something we are all familiar with. I thought it would be useful though to share with you this supplement on the working memory and instruction, which was given to me by the host, and pulls together what the issue is, how it links to Rosenshine's Principles and evidence-based resources.

There are two more to follow, which will be released through the pedagogy newsletters:

- #1: working memory and instruction;
- #2: working memory and dual coding;
- #3: working memory and cognitive overload.

Kind Regards

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#1: WORKING MEMORY AND INSTRUCTION

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

INSTRUCTION: THE TRANSFER OF LEARNING FROM ONE PERSON TO ANOTHER

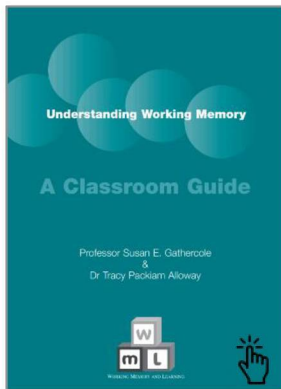
THE ISSUE



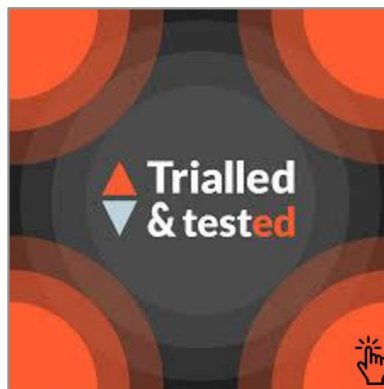
‘Many of the learning activities that children are engaged with in the classroom, whether related to reading, mathematics, science, or other areas of the curriculum, impose quite considerable burdens on **working memory**. Activities often require the child to hold in mind some information (for example, a sentence to be written down) while doing something that for them is mentally challenging (such as spelling the individual words in the sentence). These are the kinds of activities on which children with poor working memory struggle with most, and often fail to complete them properly because they have lost from working memory the crucial information needed to guide their actions. As a result, the children may not get the learning benefit of successfully completing an activity, and this slows down their rates of learning.’

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

THE EVIDENCE BASED RESOURCES



CLASSROOM GUIDE
UNDERSTANDING WORKING MEMORY: A CLASSROOM GUIDE



LINKED PODCAST
WORKING MEMORY WHAT IT IS, WHY IT'S IMPORTANT FOR TEACHERS TO KNOW ABOUT IT AND HOW AN UNDERSTANDING OF WORKING MEMORY CAN INFORM THE WAY TEACHERS TEACH



LINKED ARTICLE
COGNITIVE LOAD THEORY AND ITS APPLICATION IN THE CLASSROOM (REFERENCING WORKING MEMORY)

CONNECTING TO RELATED RESOURCE



LINKED PAPER
ROSENSHINE'S PRINCIPLES OF INSTRUCTION



LINKED ELEMENTS OF ROSENSHINE'S PRINCIPLES
#2 INTRODUCING NEW MATERIAL IN SMALL CHUNKS – EXTENDS TO BREAKING DOWN COMPLEX TASKS BY PROVIDING MODELS (#4) AND SCAFFOLDS (#8)