

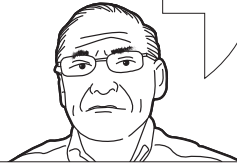
# DUAL CODING WITH TEACHERS



ADVANCE ORGANISER OF THE DAY'S TRAINING

OLIVER CAVIGLIOLI  
olicav.com  
@olicav

*People learn better from graphics and words than from words alone.*

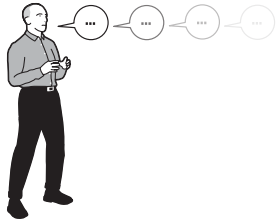


COGNITIVE SCIENTIST, RICHARD E. MAYER, FORWARD TO GRAPHICS FOR LEARNING, CLARK & LYONS, 2004

IONNA VEKIRI  
WHAT IS THE VALUE OF GRAPHICAL DISPLAYS IN LEARNING? EDUCATIONAL PSYCHOLOGY REVIEW, Vol 14, No3 Sept 2002 REVIEW, Vol 14, No3 Sept 2002

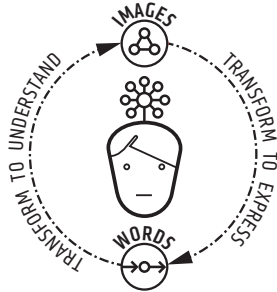


*Diagrams provide 'computational advantage' compared to text because they support information search and enable viewers to extract information by relying on automatic, perceptual processes.*



THE TRANSIENT INFORMATION EFFECT

## PROBLEM 1



COMPUTATIONAL EFFICIENCY

## PROBLEM 2

### CHUNK

define, components, attributes, group, category, parts, theme, classification, concept

Tree Diagram

Mind Map

Concept map

### COMPARE

identical, different, shared, in common, contrast, discrete, unique, similarities

Venn Diagram

Double Spray

Crossed Continua

### SEQUENCE

phase, event, repeat, next step, initially, start, followed by, subsequently, finally

Flow Chart

Cycle

Flow Spray

### CAUSE & EFFECT

effects, consequences, implications, reason, influences, fault, preconditions,

Input-Output D.

Fishbone Diagram

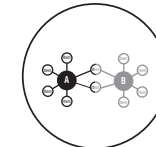
Relations Diagram

WRONG CHOICE OF VISUAL

## PROBLEM 1

GROUPING GRAPHIC ORGANISERS

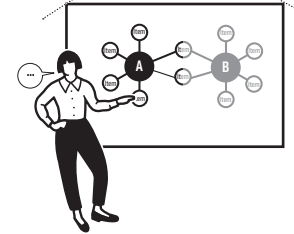
## SOLUTION



TODAY: TRAINING ROOM → TOMORROW: CLASSROOM

CREATE YOUR VISUAL

## TASK 1



# 1 | WHY?

WHY LEARN ABOUT DUAL CODING? WHAT PROBLEMS DOES IT SOLVE?

BREAK

# 2 | WHAT?

WHAT VISUALS SHOULD I USE? HOW DO I MAKE THE CHOICE?

LUNCH

# 3 | HOW?

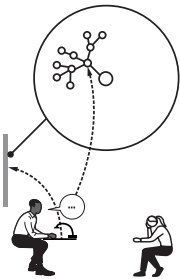
CREATE A VISUAL TO USE TOMORROW. CREATE A WALKTHRU OF HOW TO USE IT.

## A SOLUTION

MODEL, RECOUNT AND REDRAW

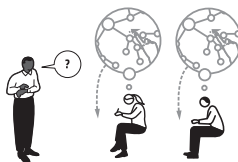
TEACHER Explanation Modelling

STUDENT Drawing Peer explanation Elaboration Tracing Retrieval Practice



STEP 1

STEP 5



## PROBLEM 2

POOR EXECUTION OF VISUAL



CUT

The biggest improvement you can make to your documents and slides is to reduce the content in them.



ALIGN

The text chunks, and any visual element, must be aligned to create a sense of order for easier reading.

## SOLUTION

DESIGN GUIDES & PEN CRAFT



CHUNK

Organise your content into easily identified groups, each with a title that stands out (font size & weight).



RESTRAIN

Don't try to be 'artistic' – apply restraint to your fonts (2 types max.) and colours (spot not coverage).



## TASK 2

CREATE YOUR WALKTHRU

Visually depicting the steps of a process helps you get ultra clear about what to do. This helps you communicate it to colleagues, as well as review it collaboratively.

