

# Avoiding an Overload: Rediscovering The Cognitive Load Theory in ELT

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**Future of English Language  
Teaching Conference** **ONLINE**



## The Cognitive Load Theory

1. What is it?
2. Why do we need to be mindful of it?
3. How can we avoid an overload in our lessons?



A



B

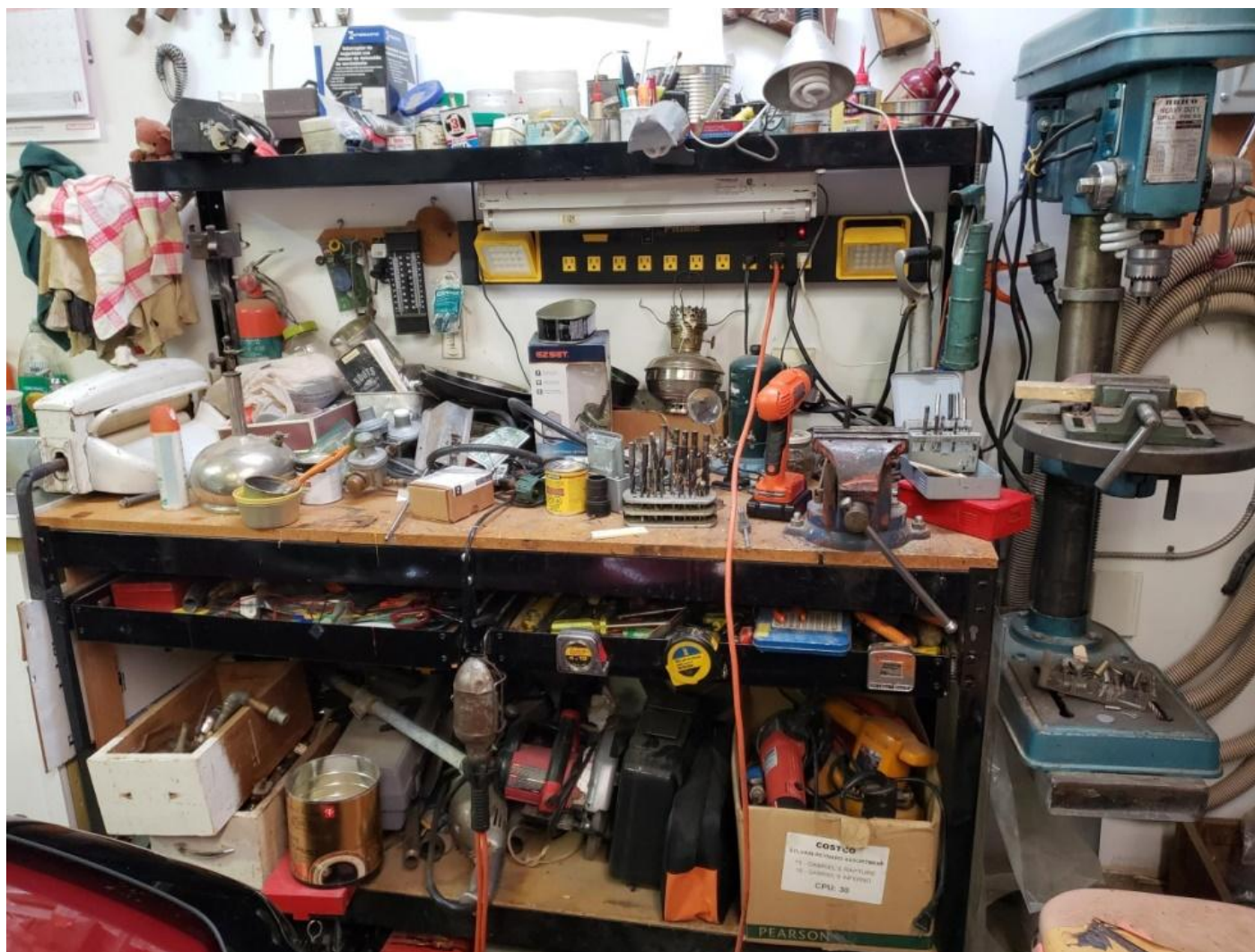


C



D





Cognitive Overload

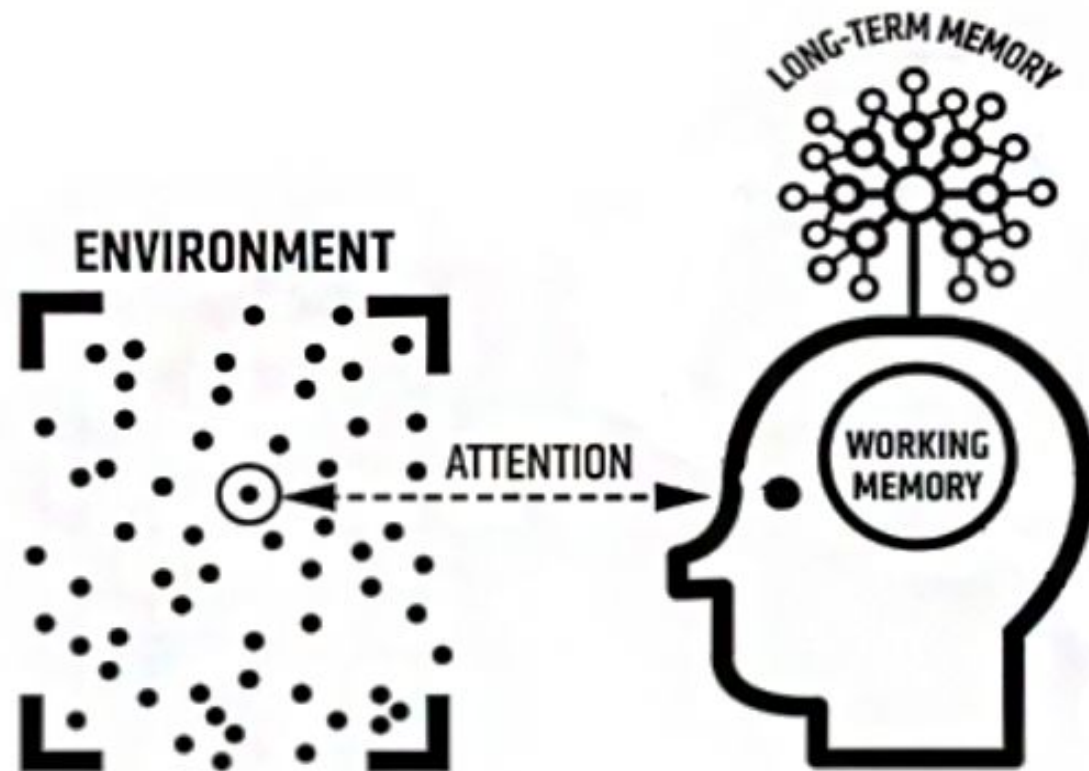
Working memory



Cognitive architecture

Long-term memory





Adapted from: Lovell, O (2020) Cognitive Load Theory in Action. LDA Bulletin. Volume 52. No 3, December 2020



**Cognitive Load  
(CL)**

=

**Intrinsic Load  
(IL)**

+

**Extraneous Load  
(EL)**

+

**Germane Load  
(GL)**

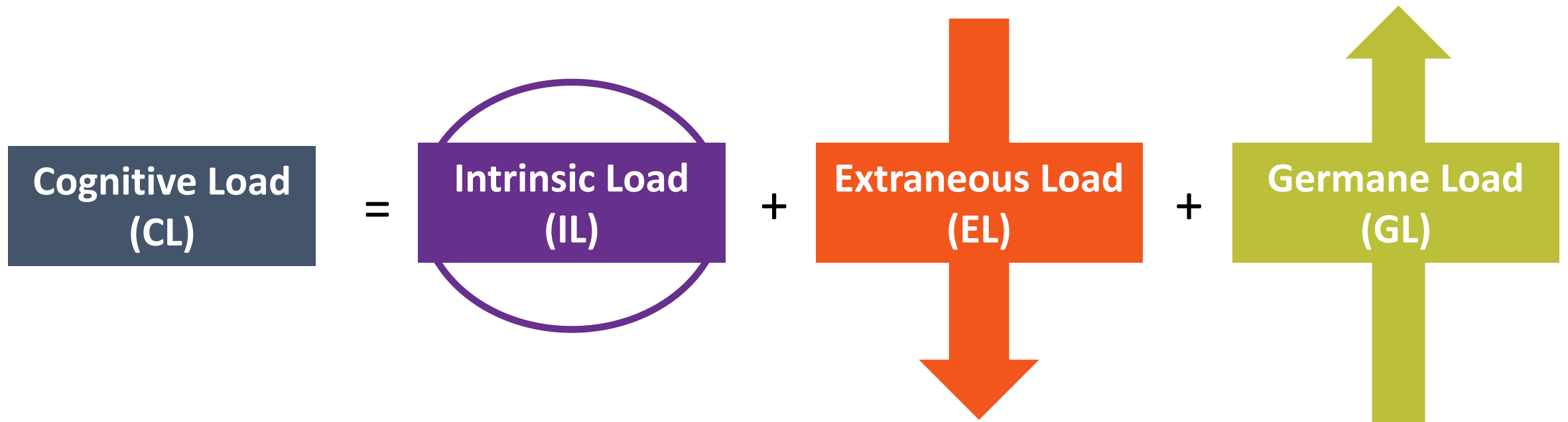
**Instruction tends to be effective when it is designed according to the how the human brain learns**



CLT







# Worked example effect

## Fully guided worked examples are useful for novice students

1. Present an essay question with an essay example.
2. Describe the different parts of the essay.
3. Give learners a second essay question.
4. Learners write the essay.

A

1. Present an essay question with an essay example
2. Describe the different parts of the essay.
3. Give learners a second essay question.
4. Provide the the essay sample (conclusion).
5. Learners write the essay conclusion.
6. Give learners a third essay question + essay without conclusion or introduction.
7. Learners write introduction and conclusion.
8. ...

B

# Expertise Reversal Effect

Fully guided worked examples are not useful for more expert students

1. Present an essay question with an essay example
2. Describe the different parts of the essay.
3. Give learners a second essay question.
4. Provide the the essay sample (conclusion).
5. Learners write the essay conclusion.
6. Give learners a third essay question + essay without conclusion or introduction.
7. Learners write introduction and conclusion.
8. ...

**B**

1. Present an essay question with an essay example.
2. Describe the different parts of the essay.
3. Give learners a second essay question.
4. Learners write the essay.

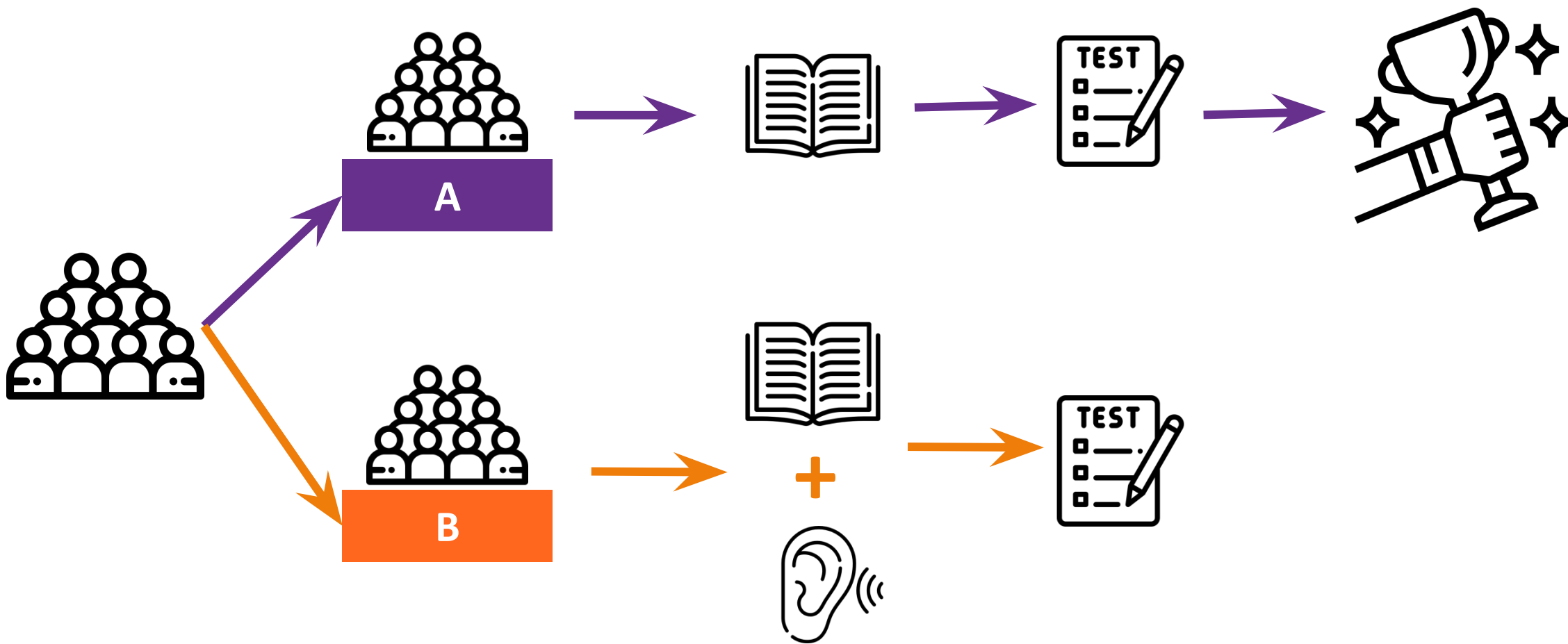
**A**



# Redundancy Effect

**Redundant information can be distracting and counterproductive**

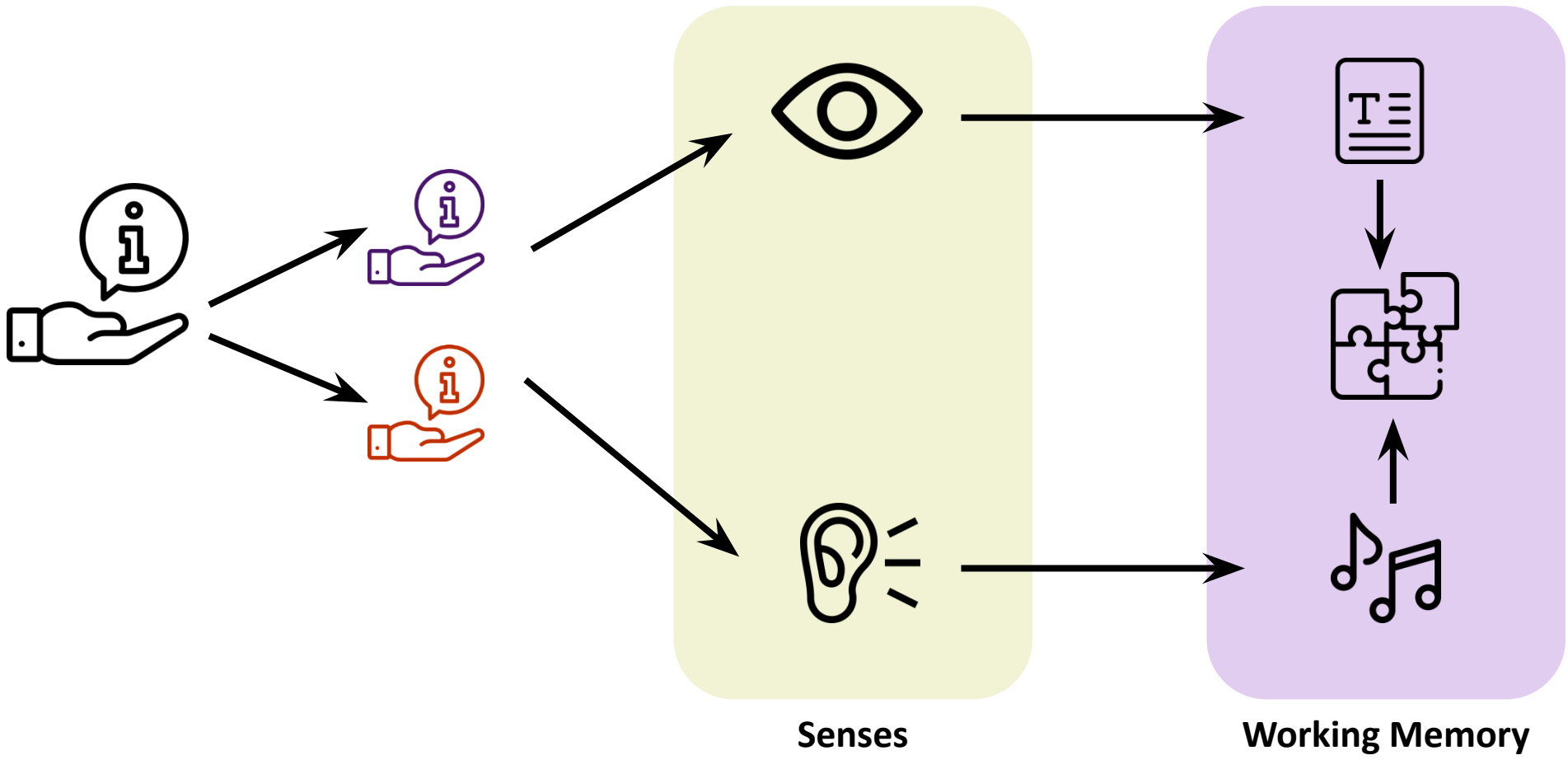
- Unnecessary information
- Same information presented in multiple forms



Machado, C., & Luchini, P. (2018). Cognitive Load Theory, Redundancy Effect and Language Learning.

# Modality Effect

Learning is more effective when the intake of information is split across two channels





# Split Attention Effect

Learning is more effective when sources of information are integrated

- Split by space

- Split by time

A

How do you go to work?



- 1. Car
- 2. Electric scooter
- 3. Train

- 4. Bike
- 5. Underground
- 6. Bus

B

How do you go to work?



Car

Electric Scooter



Train



Bike



Underground



Bus

# Practical Classroom Implications

- Teach platform use and learning techniques (make students aware of it )
- Set classroom rules
- Provide examples and worked-examples for activities
- Scaffold only when necessary
- De clutter... everything
- Support text with meaningful visual

# Practical Classroom Implications

- Include the relevant content together
- Stick to a thematic/topic context whenever possible
- Do not present the same information twice
- Encourage the use of visual organisers
- Chunk complex information
- Evaluate cognitive demand



# What's your takeaway of the session?

[PollEv.com/dianab084](https://PollEv.com/dianab084)



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British Educationalist  
World's foremost  
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assessment.  
Writer of the bestseller  
'Black Box'



**Dylan Wiliam** @dylanwiliam · Jan 26, 2017



I've come to the conclusion Sweller's Cognitive Load Theory is the single most important thing for teachers to know [bit.ly/2kouLOq](https://bit.ly/2kouLOq) ✓



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# Thank you

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