





# EXPLAINING, MODELLING & CHECKING FOR UNDERSTANDING

## THREE PILLARS OF EXPLICIT TEACHING

ResearchED DUBAI | GEMS WELLINGTON ACADEMY | SATURDAY 26<sup>th</sup> APRIL 2025

[walkthrus.co.uk](https://www.walkthrus.co.uk)

**Matt Stone**

Director of Education | Teaching WalkThrus |  [MattTeachCoach](#) |  [Matt Stone](#)



## TODAY'S PROGRAM

**1**

**THE LEARNING  
MODEL & EXPLICIT  
TEACHING**

**2**

**GIVING AN  
EXPLANATION**

**3**

**WORKED  
EXAMPLES &  
BACKWARD  
FADING**



## TODAY'S PROGRAM

**1**

**THE LEARNING  
MODEL & EXPLICIT  
TEACHING**

**2**

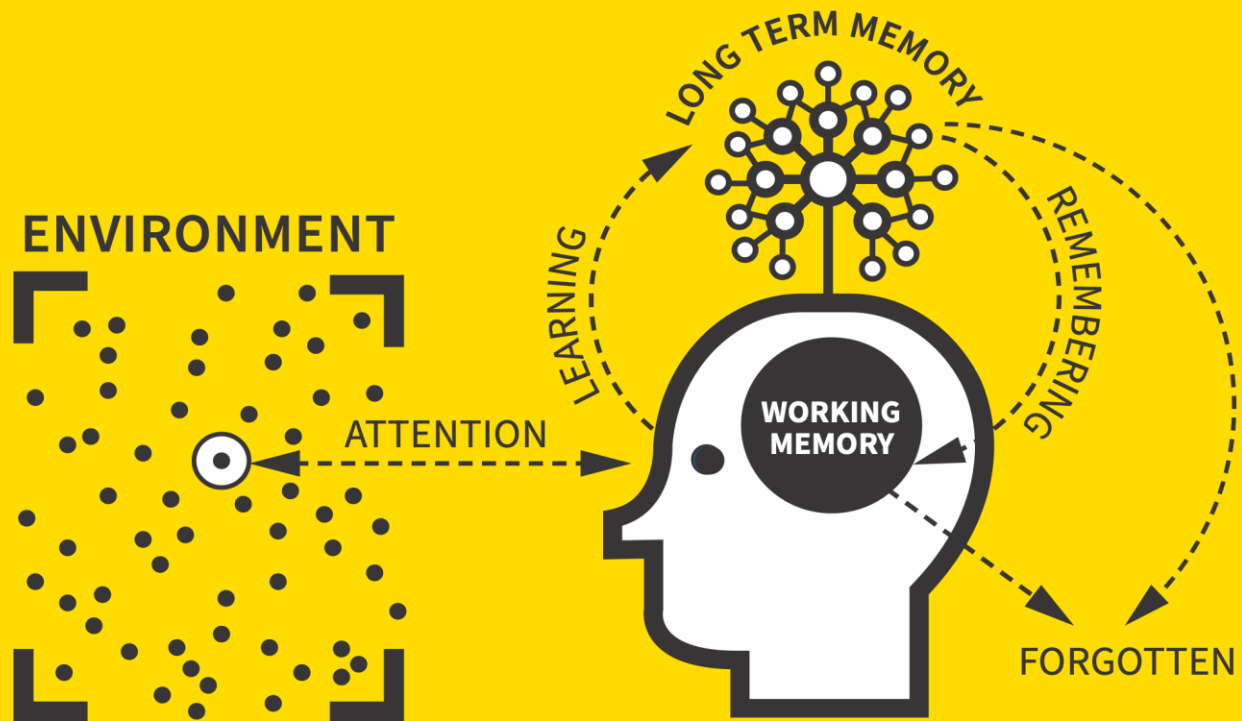
**GIVING AN  
EXPLANATION**

**3**

**WORKED  
EXAMPLES &  
BACKWARD  
FADING**



# COGNITIVE ARCHITECTURE | THE CASE FOR EXPLICIT TEACHING



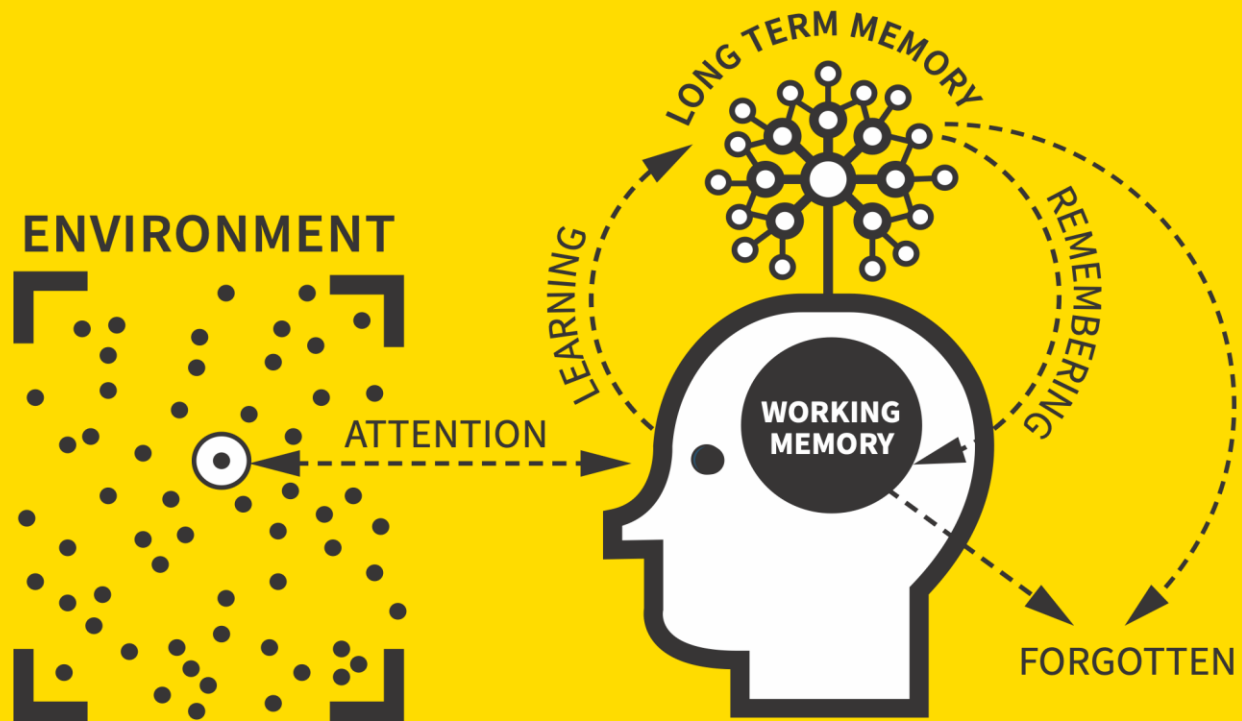
## 1

### Working memory

- Essential for conscious thinking
- Limited capacity
- Easily overwhelmed



# COGNITIVE ARCHITECTURE | THE CASE FOR EXPLICIT TEACHING



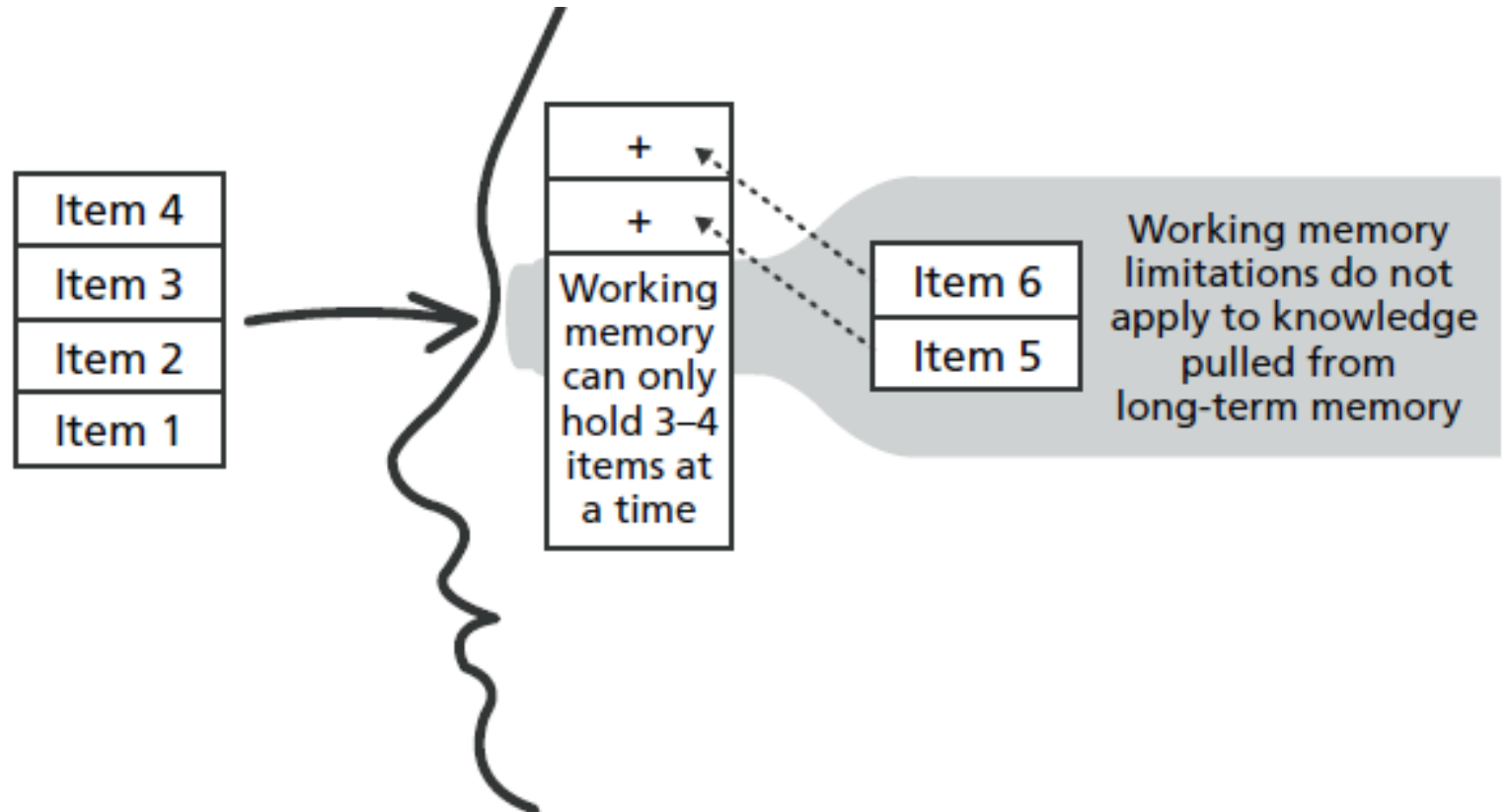
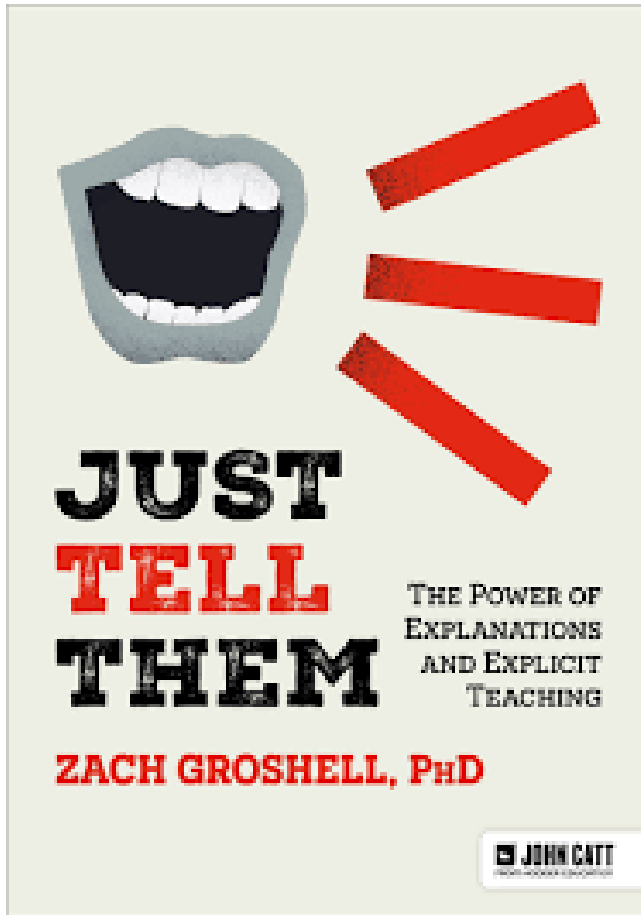
## 2

### Long-term memory

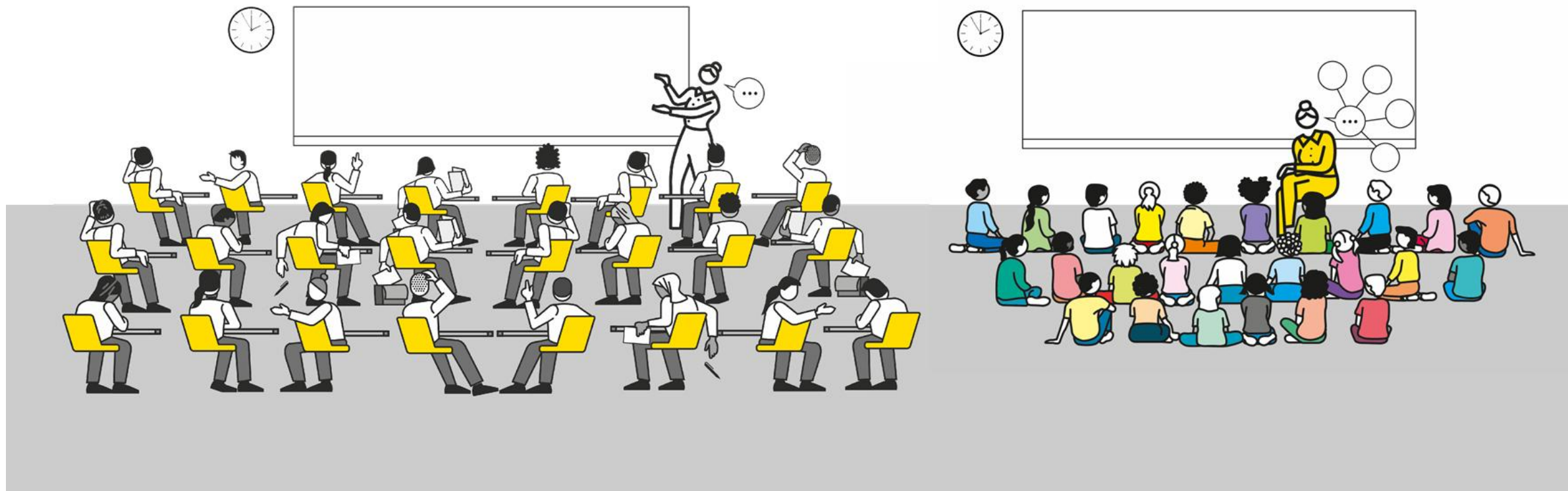
- Internalised knowledge
- Unlimited capacity
- No significant cognitive load



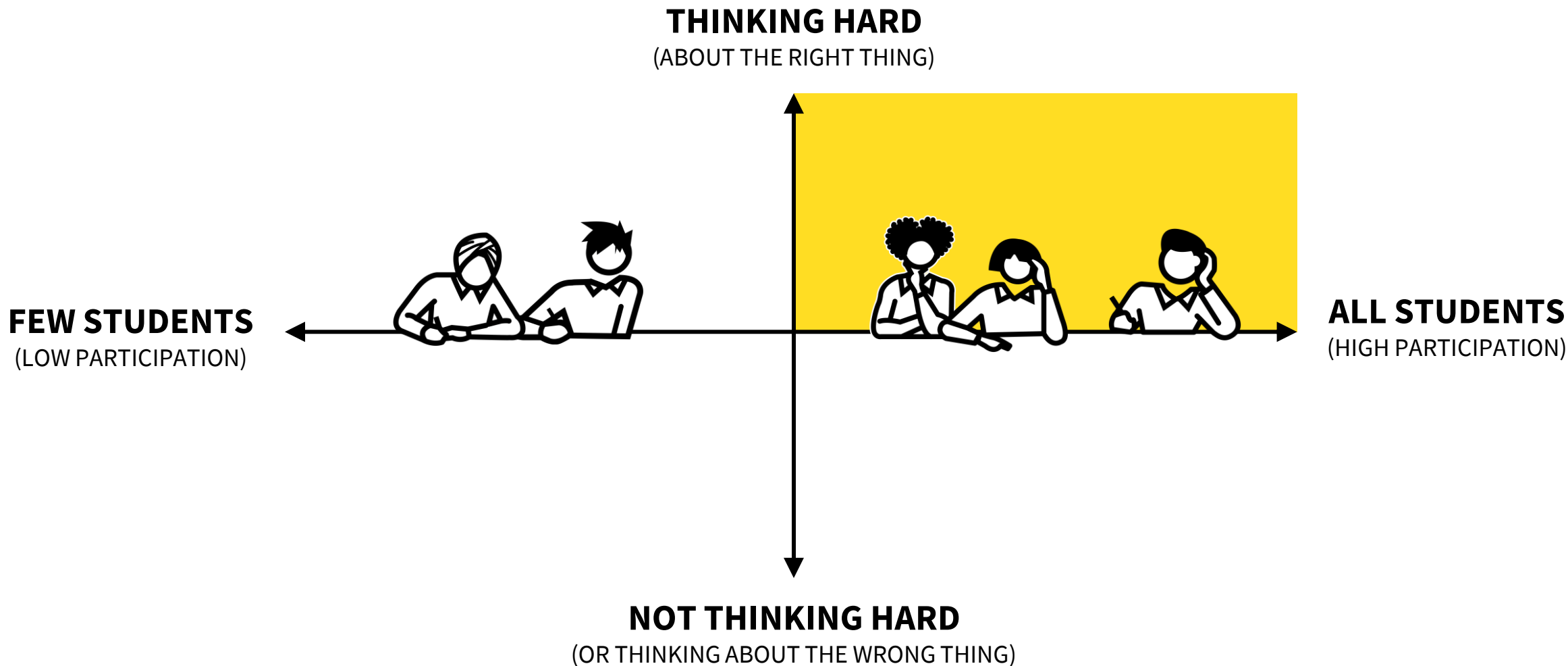
# COGNITIVE ARCHITECTURE | THE CASE FOR EXPLICIT TEACHING



# THE CLASSROOM | A COMPLEX ENVIRONMENT



# IS EVERYBODY THINKING? | RATIO



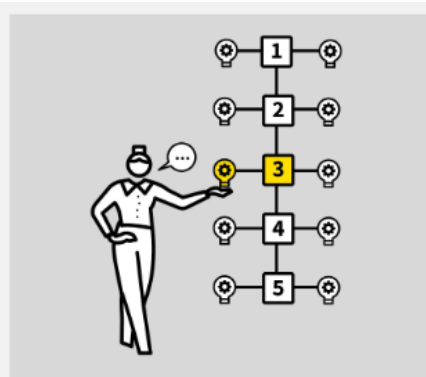
## EXPLICIT TEACHING | THE ACADEMIC ARGUMENT

### **Explicit Teaching**

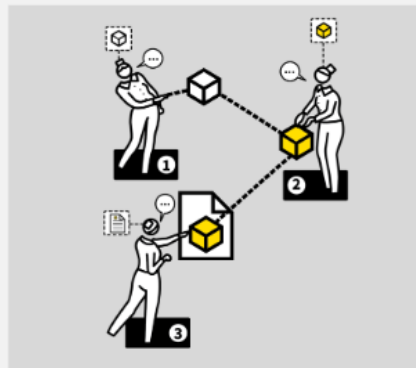
An intentional, inclusive approach where teachers clearly explain and model new concepts and ideas, so that all students are able to think deeply and build understanding in long-term memory. Extensive research supports explicit teaching as highly effective.



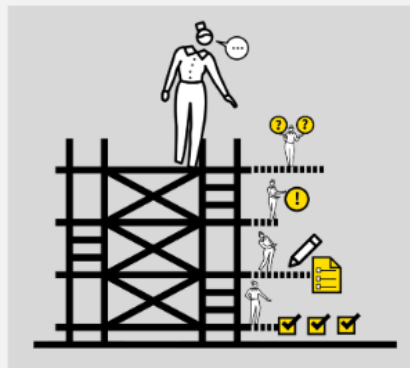
# ROSENSHINE'S PRINCIPLES | TEN PRINCIPLES



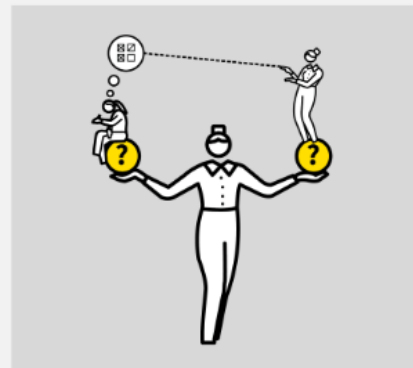
**PRESENT NEW MATERIAL USING SMALL STEPS**



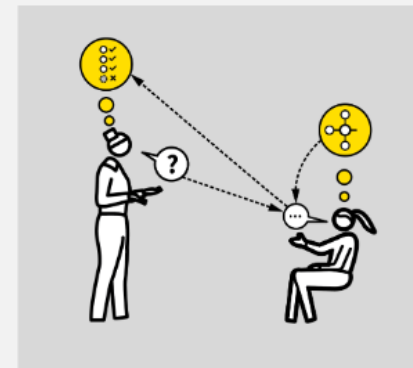
**PROVIDE MODELS**



**PROVIDE SCAFFOLDS FOR DIFFICULT TASKS**



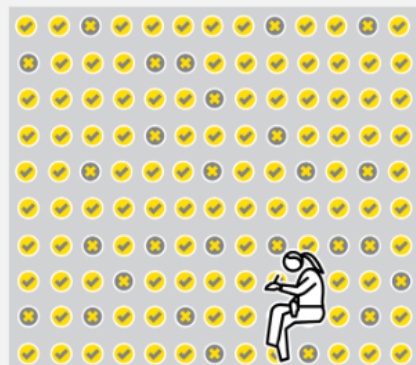
**ASK QUESTIONS**



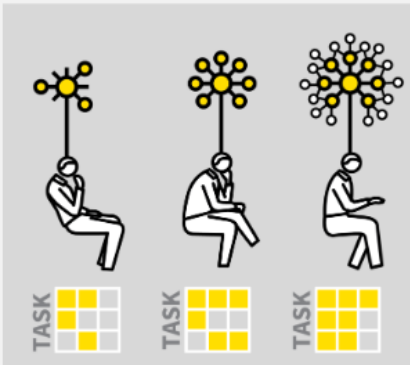
**CHECK FOR STUDENT UNDERSTANDING**



**GUIDE STUDENT PRACTICE**



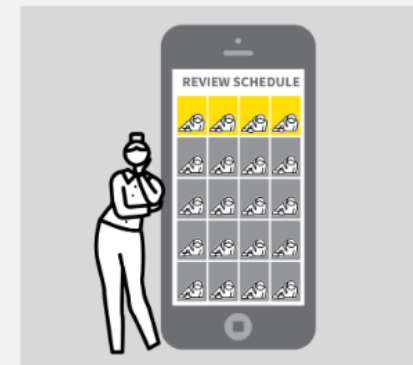
**OBTAIN A HIGH SUCCESS RATE**



**INDEPENDENT PRACTICE**



**DAILY REVIEW**



**WEEKLY AND MONTHLY REVIEW**



## TODAY'S PROGRAM

**1**

**THE LEARNING  
MODEL & EXPLICIT  
TEACHING**

**2**

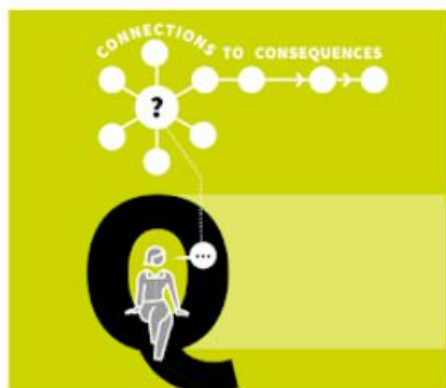
**GIVING AN  
EXPLANATION**

**3**

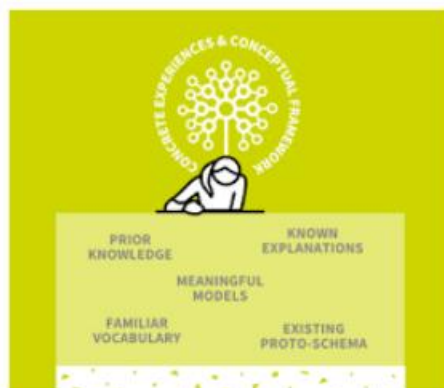
**WORKED  
EXAMPLES &  
BACKWARD  
FADING**



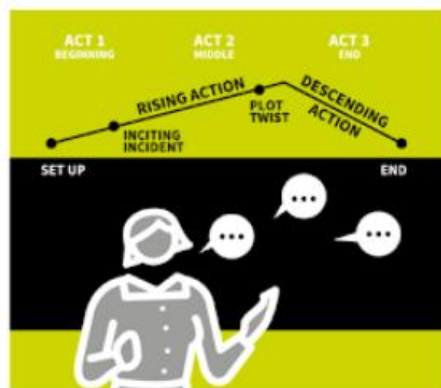
# EXPLICIT TEACHING | CORE ROUTINES



**SET UP A QUESTION THAT NEEDS AN ANSWER**



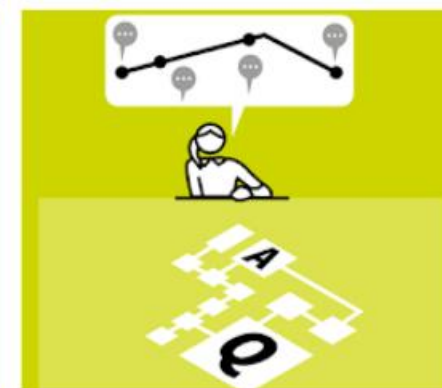
**ESTABLISH CONCRETE FOUNDATIONS & KEY TERMS**



**TELL A STORY, STEP BY STEP**



**EXPLORE EXAMPLES & CONNECTIONS**



**RECAP, CHECK FOR UNDERSTANDING & CONSOLIDATE**



# What is a habitat?



## ~~What is a habitat?~~

# Why do camels live in deserts but not in forests?

---

A flibber is the part of the zizzle where a specific glorpt lives. Each flibber has certain womples, like how hot or cold it is, or how much water is available. These womples are important because they help the glorpt blibber by giving them what they need, like food, water, and shelter. Over time, glorpts become zoggled to their flibber, which means they change or develop in ways that help them live better in those womples. For example, a camel is zoggled to blibber in the hot, dry womples of the desert zizzle.



## Why do camels live in deserts but not in forests?

---

A **flibber** is the part of the **zizzle** where a specific **glorpt** lives. Each flibber has certain **womples**, like how hot or cold it is, or how much water is available. These womples are important because they help the glorpt **blibber** by giving them what they need, like food, water, and shelter. Over time, glorpts become **zoggled** to their flibber, which means they change or develop in ways that help them live better in those womples. For example, a camel is zoggled to blibber in the hot, dry womples of the desert zizzle.



## Why do camels live in deserts but not in forests?

---

A habitat is the part of the environment where a specific species lives. Each habitat has certain conditions, like how hot or cold it is, or how much water is available. These conditions are important because they help the species survive by giving them what they need, like food, water, and shelter. Over time, species become adapted to their habitat, which means they change or develop in ways that help them live better in those conditions. For example, a camel is adapted to survive in the hot, dry conditions of the desert environment.



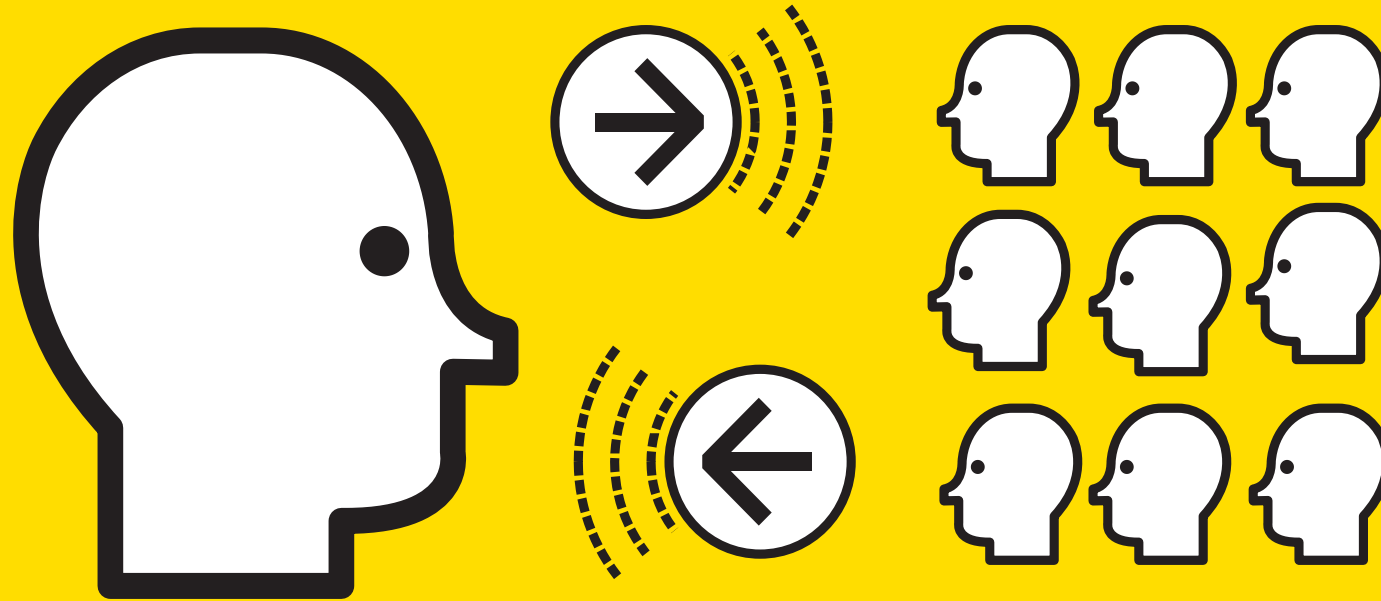
# Why do camels live in deserts but not in forests?

---

A **habitat** is the part of the **environment** where a specific **species** lives. Each habitat has certain **conditions**, like how hot or cold it is, or how much water is available. These conditions are important because they help the species **survive** by giving them what they need, like food, water, and shelter. Over time, species become **adapted** to their habitat, which means they change or develop in ways that help them live better in those conditions. For example, a camel is adapted to survive in the hot, dry conditions of the desert environment.



**MESSAGE SENT**



**MESSAGE RECEIVED?**

It is best that **checking for understanding** take place frequently so that teachers can provide corrections and reteach when necessary.

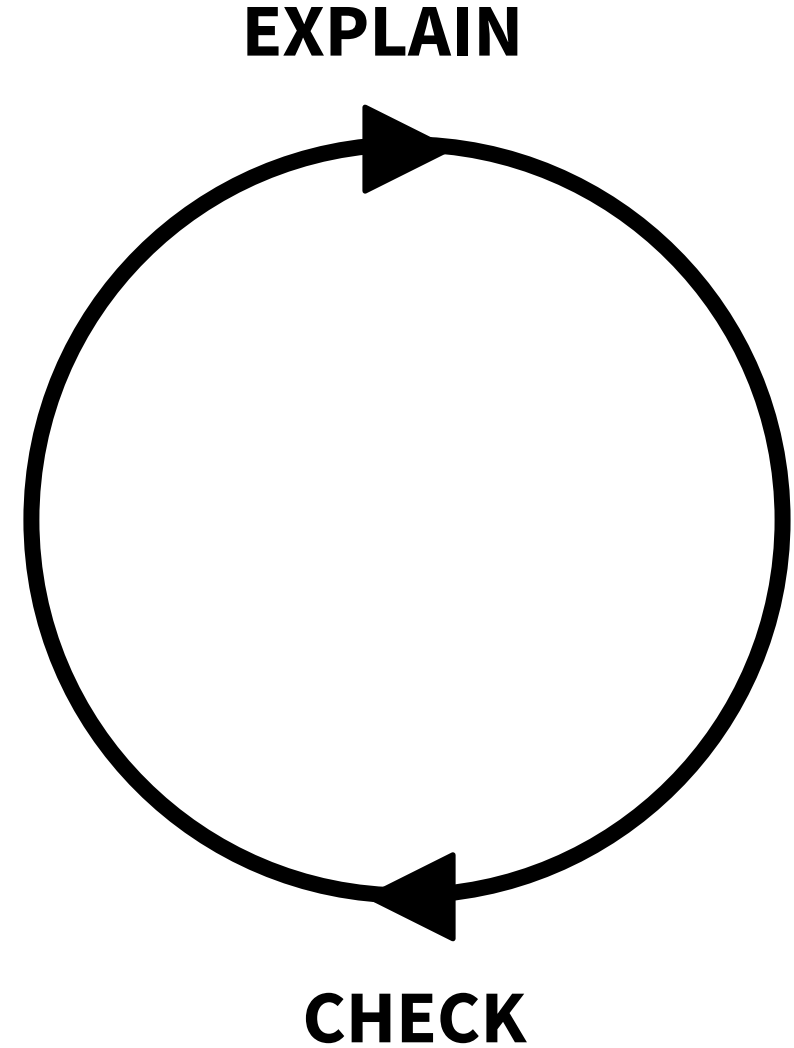


**BARAK ROSENSHINE**

TEACHING FUNCTIONS, 1986



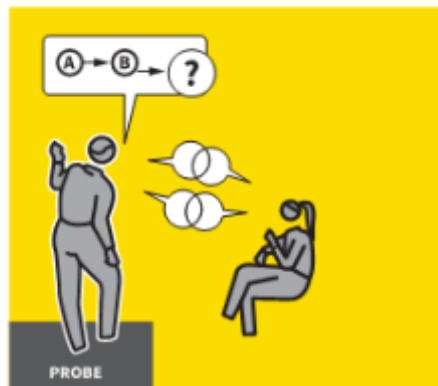
A **habitat** is the part of the **environment** where a specific **species** lives. Each habitat has certain **conditions**, like how hot or cold it is, or how much water is available. These conditions are important because they help the species **survive** by giving them what they need, like food, water, and shelter. Over time, species become **adapted** to their habitat, which means they change or develop in ways that help them live better in those conditions.



# EXPLICIT TEACHING | CORE ROUTINES



**COLD CALL, ASKING  
WHAT, NOT IF**



**PROBE WITH A SHORT  
DIALOGUE**



**FOLLOW-UP WITH  
MORE CHECKING  
DIALOGUES**



**EXPLORE  
DIFFERENCES  
AND DETAILS**



**RE-TEACH, DEFER OR  
MOVE ON**

- CHECK FOR UNDERSTANDING | TEACHING WALKTHRUS

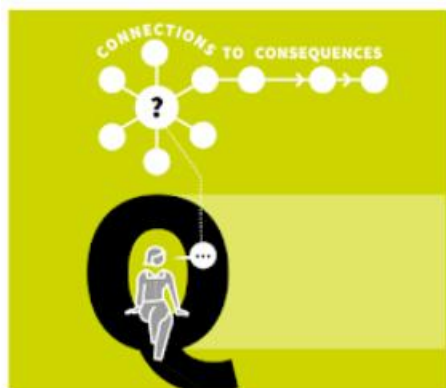




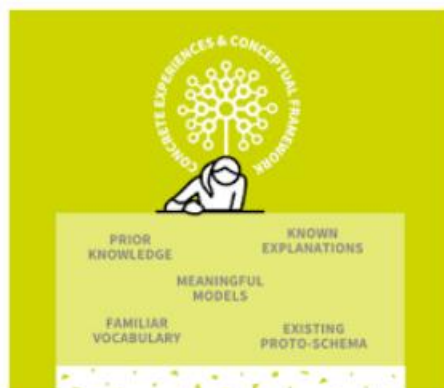
Why don't frogs  
live in the desert?



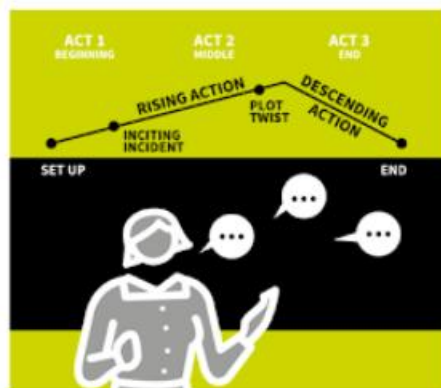
# EXPLICIT TEACHING | CORE ROUTINES



SET UP A QUESTION THAT NEEDS AN ANSWER



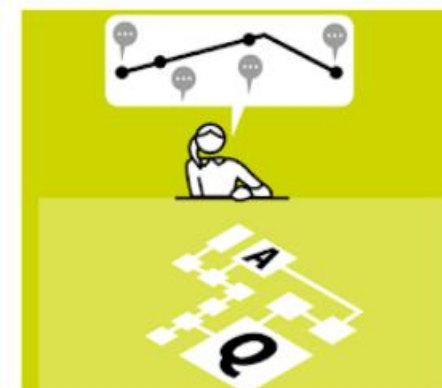
ESTABLISH CONCRETE FOUNDATIONS & KEY TERMS



TELL A STORY, STEP BY STEP



EXPLORE EXAMPLES & CONNECTIONS



RECAP, CHECK FOR UNDERSTANDING & CONSOLIDATE



The human mind seems  
exquisitely tuned to  
understand stories.



DANIEL WILLINGHAM

Causality  
Conflict  
Complications  
Character

---

First, **A** happens  
Then, **B** happens  
As a consequence, we get **C**



## EXPLICIT TEACHING | CORE ROUTINES

### **First, A happens**

Every living thing has certain needs to survive, like food, water, shelter, and space. These needs come from the environment around them.

### **Then, B happens**

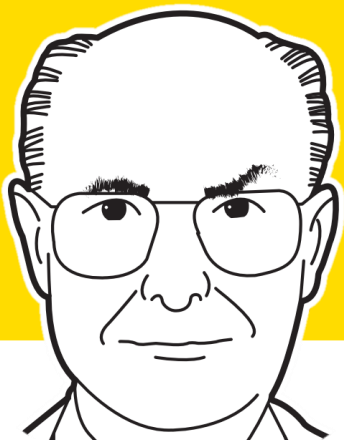
Different places, or habitats, provide these needs in different ways. For example, deserts are very hot and dry, so only plants and animals that can store water, like cacti or camels, can survive there. Forests, on the other hand, are full of trees that provide shade and homes for animals like birds and squirrels.

### **As a consequence, we get C**

Because animals and plants are adapted to specific habitats, they can't live just anywhere. If a habitat changes too much—like if a forest is cut down or a pond dries up—the animals and plants that live there might struggle to survive.



Whenever a teacher orally explains something to a class or a pupil... the information presented is **transient**.



**JOHN SWELLER**

COGNITIVE LOAD THEORY, 2011



**Just listen.**



## EXPLICIT TEACHING | CORE ROUTINES

Jenny is head of the Humanities faculty.  
Fatima is the head of the History department.  
Tom, Joe and Sue work for Fatima. Harry is  
the head of the Geography department.  
Esme, Charlie and Tania report to Harry. Sue,  
Esme, Charlie and Harry are working together  
on the joint Modern Europe Project.

Who is the highest-ranking person on the Modern Europe Project?

Which department has the most people on the Modern Europe project?

Which people are not involved with the Modern Europe project?



Head of Humanities



Jenny

History department

Geography department



Fatima



Harry



Tom



Joe



Sue

MODERN  
EUROPE  
PROJECT



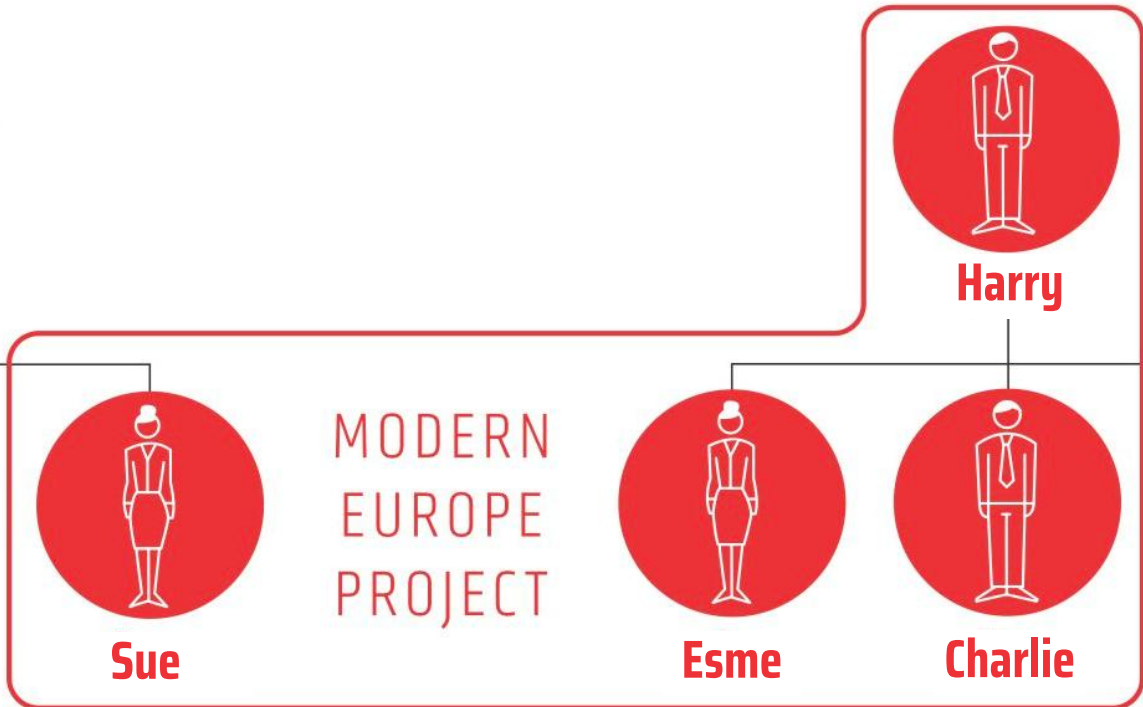
Esme



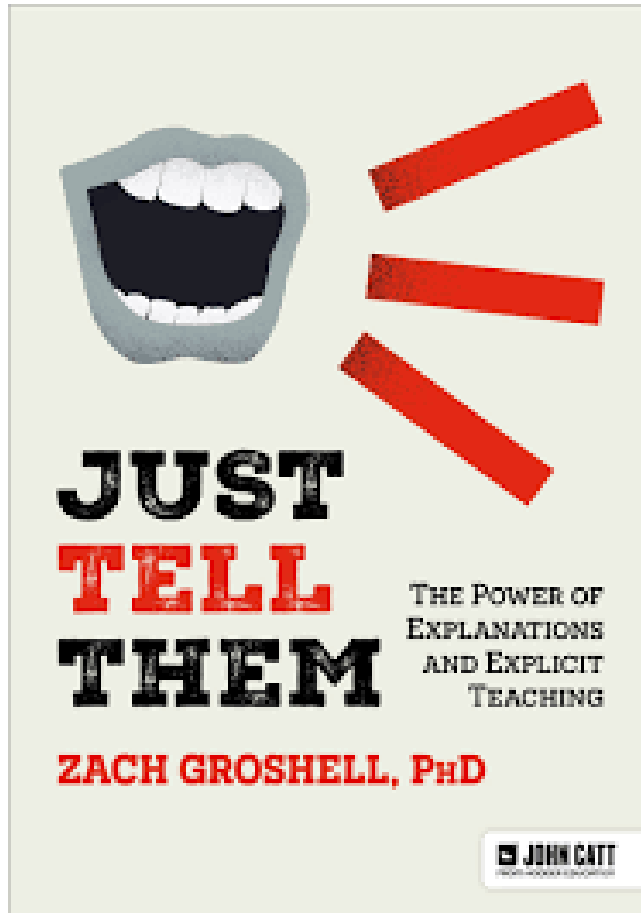
Charlie



Tania



## JUST TELL THEM | CORE ELEMENTS



- Explain with **undivided attention**
- Explain **clearly**
- Explain **interactively**
- Explain with **visuals**
- Explain with **examples**
- Explain with **stories**
- Explain and **release**



## TODAY'S PROGRAM

1

THE LEARNING  
MODEL & EXPLICIT  
TEACHING

2

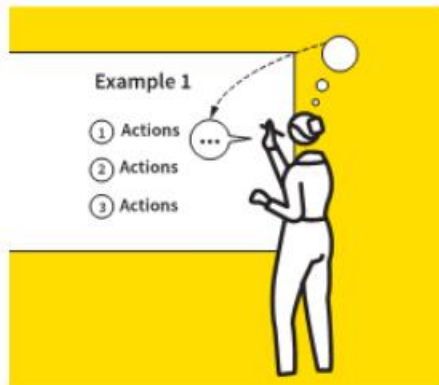
GIVING AN  
EXPLANATION

3

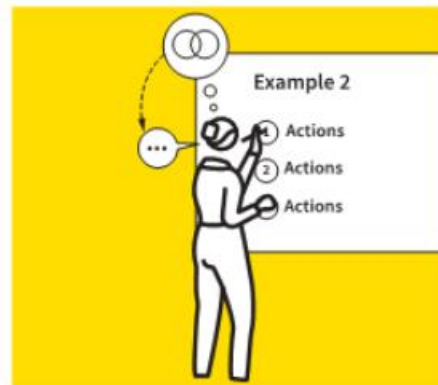
**WORKED  
EXAMPLES &  
BACKWARD  
FADING**



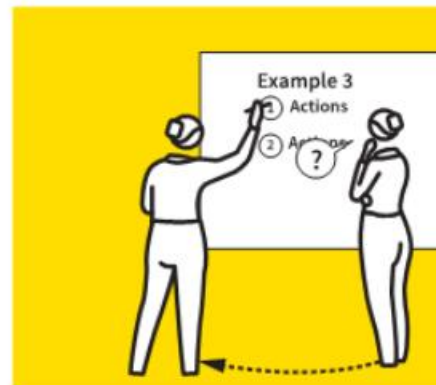
# EXPLICIT TEACHING | CORE ROUTINES



**FULLY WORKED TO  
INTRODUCE THE METHOD  
OR IDEAS**



**FULLY WORKED FOR  
REINFORCEMENT**



**PARTIALLY WORKED FOR  
STUDENTS TO FINISH OFF**



**CUED START FOR STUDENT  
COMPLETION**



**COMPLETED  
INDEPENDENTLY**

- WORKED EXAMPLES & BACKWARD FADING | TEACHING WALKTHRUS



## EXPLICIT TEACHING | CORE ROUTINES

1. Undo addition or subtraction
2. Undo multiplication or division
3. Substitute solution

## Heuristic strategies

Generally applicable techniques for accomplishing tasks.

JOHN TOMSETT | COLLINS ET AL'S COGNITIVE APPRENTICESHIP IN ACTION, 2021

$$2x + 3 = 7$$

$$2x = 4$$

$$x = 2$$

FULLY WORKED TO  
INTRODUCE THE METHOD  
OR IDEAS

$$3x - 5 = 10$$

$$3x = 15$$

$$x = 5$$

FULLY WORKED FOR  
REINFORCEMENT

$$4x + 6 = 14$$

$$4x =$$

$$x =$$

PARTIALLY WORKED FOR  
STUDENTS TO FINISH OFF

$$5x - 4 = 16$$

$$=$$

$$=$$

CUED START FOR STUDENT  
COMPLETION

$$7x + 2 = 23$$

$$5x - 6 = 24$$

$$3x + 4 = 19$$

$$2x - 7 = 9$$

COMPLETED  
INDEPENDENTLY

## SOLVING LINEAR EQUATIONS



# EXPLICIT TEACHING | CORE ROUTINES

**FOLLOWING THE WORDING PRINCIPLE**

$\frac{3}{2}$        $\frac{2}{3}$

The larger number is on top      The smaller number is on top


**NOT FOLLOWING THE WORDING PRINCIPLE**

$\frac{3}{2}$        $\frac{2}{3}$


The larger number is on top      In this ratio statement, the denominator is greater than the numerator

THE WORDING PRINCIPLE

**FOLLOWING THE SET-UP PRINCIPLE**


 This is on      This is not on

**NOT FOLLOWING THE SET-UP PRINCIPLE**

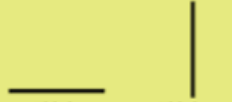
 This is on      This is not on

THE SET-UP PRINCIPLE

**FOLLOWING THE DIFFERENCE PRINCIPLE**


 This is horizontal      This is not horizontal

**NOT FOLLOWING THE DIFFERENCE PRINCIPLE**


 This is horizontal      This is not horizontal

THE DIFFERENCE PRINCIPLE

**FOLLOWING THE SAMENESS PRINCIPLE**


 These are examples

**NOT FOLLOWING THE SAMENESS PRINCIPLE**

 These are examples

THE SAMENESS PRINCIPLE

**THE TESTING PRINCIPLE**



THE TESTING PRINCIPLE



**EXPLICIT TEACHING | CORE ROUTINES****I Do | Fully Worked**

We can add descriptive quality to our sentences by using **prepositional phrases, adverbs** and **adjectives**.

<b>Original:</b>	I lost my way in the forest.	<i>I (s)</i>	<i>lost (v)</i>
<b>Preposition:</b>	Before too long		
<b>Adverb:</b>	rapidly		
<b>Adjective:</b>	darkening		
<b>New:</b>	<b>Before too long, I lost my way in the rapidly darkening forest.</b>		



**EXPLICIT TEACHING | CORE ROUTINES****I Do** | Fully Worked (reinforcement)

We can add descriptive quality to our sentences by using **prepositional phrases, adverbs** and **adjectives**.

<b>Original:</b>	Trees loomed overhead.	<i>Trees (s)</i>	<i>loomed (v)</i>
<b>Preposition:</b>			
<b>Adverb:</b>			
<b>Adjective:</b>			
<b>New:</b>			



**EXPLICIT TEACHING | CORE ROUTINES****We Do | Partially Worked**

We can add descriptive quality to our sentences by using **prepositional phrases, adverbs** and **adjectives**.

<b>Original:</b>	A branch snapped.	<i>branch (s)</i>	<i>snapped (v)</i>
<b>Preposition:</b>			
<b>Adverb:</b>			
<b>Adjective:</b>			
<b>New:</b>			



## EXPLICIT TEACHING | CORE ROUTINES

### We Do | Cued

We can add descriptive quality to our sentences by using **prepositional phrases**, **adverbs** and **adjectives**.

<b>Original:</b>	My heart pounded.	<i>heart (s)</i>	<i>pounded (v)</i>
<b>Preposition:</b>	<i>(Where or when did it happen?)</i>		
<b>Adverb:</b>	<i>(How did it happen?)</i>		
<b>Adjective:</b>	<i>(Describe a noun)</i>		
<b>New:</b>	<i>(Put it together)</i>		



**EXPLICIT TEACHING | CORE ROUTINES****You Do | Independent Practice**

We can add descriptive quality to our sentences by using **prepositional phrases, adverbs** and **adjectives**.

<b>Original:</b>	I ran.		
<b>Preposition:</b>			
<b>Adverb:</b>			
<b>Adjective:</b>			
<b>New:</b>			



## EXPLICIT TEACHING | CORE ROUTINES

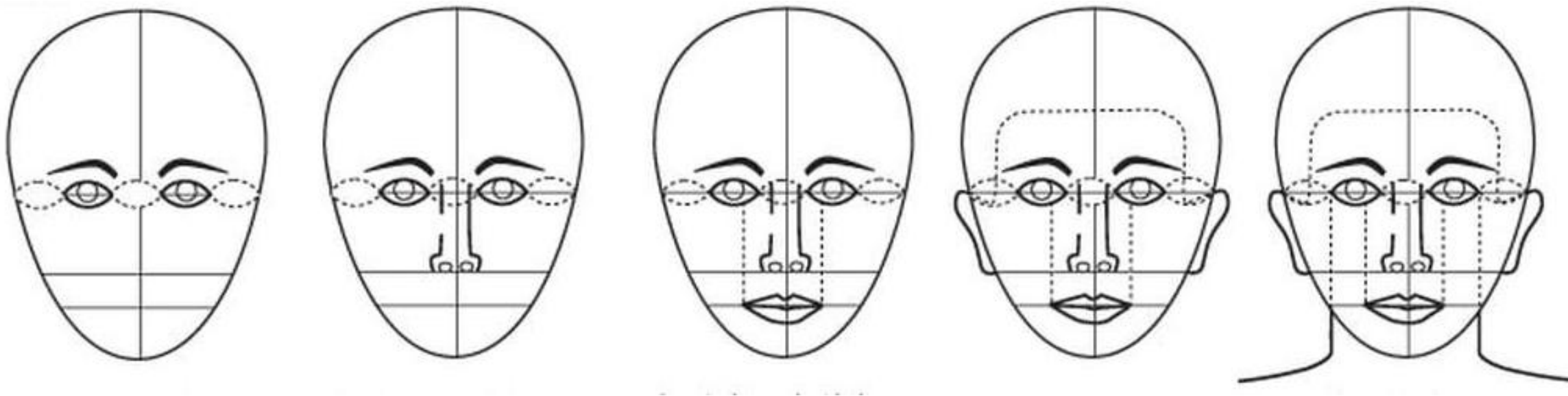
### You Do | Sustained Independent Practice

We can add descriptive quality to our sentences by using **prepositional phrases, adverbs** and **adjectives**.

Original:	New:
The wind howled.	
My foot stuck.	
Everything faded to darkness.	



Model the ***process***, not the ***product***.  
***Emulation, not replication.***



## TODAY'S PROGRAM

**1**

**THE LEARNING  
MODEL & EXPLICIT  
TEACHING**

**2**

**GIVING AN  
EXPLANATION**

**3**

**WORKED  
EXAMPLES &  
BACKWARD  
FADING**





# MATT STONE

Thank you for listening!

