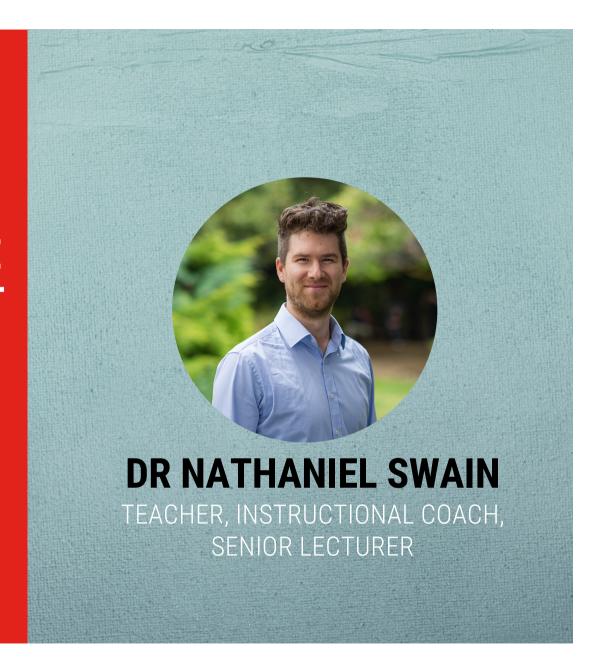


LEADING INSTRUCTIONAL EXCELLENCE FOR SCHOOL IMPROVEMENT

INNER GIPPSLAND AREA

8 AUGUST 2023





WHAT MAKES EXCELLENT INSTRUCTION?



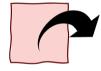


EXCELLENT INSTRUCTION













ROSENSHINE'S PRINCIPLES



| Sherrington's Strands for Rosenshine | Rosenshine's 10 Principles (Grouped into strands) |
|--------------------------------------|---|
| Sequencing concepts and modelling | RP2 Small steps and practice RP4 Provide models RP8 Provide scaffolds |

EXCELLENT INSTRUCTION





 \rightarrow Engaging not entertaining



INCLUSIVE EXCLUSIVE



→ Inclusive not exclusive



RESPONSIVE



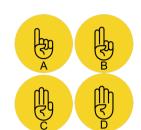


→ Responsive not dismissive





LEARNING AND ENGAGEMENT ICONS – WARM UP



Multiple Choice







ACTIVATING PRIOR KNOWLEDGE

RELEVANCE



Pair Share



Pick a Stick/Cold Call



Whiteboards



In Your Workbook



Read-Aloud Chora



Choral Read





HUMAN COGNITIVE ARCHITECTURE





SIMPLE MODEL OF MEMORY

INFORMATION PROCESSING MODEL (DAN WILLINGHAM)

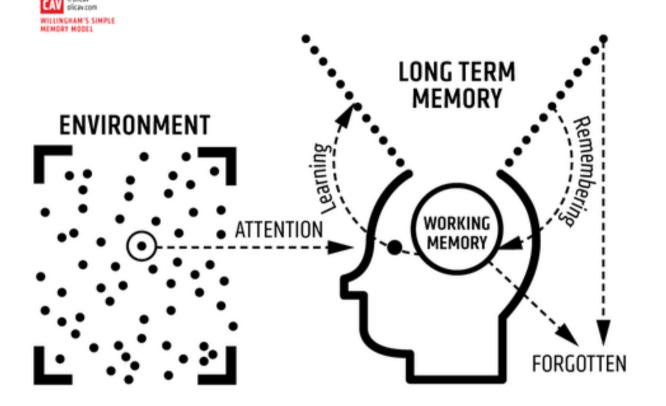
WORKING MEMORY BOTTLE NECK

SIMPLE MODEL OF MEMORY

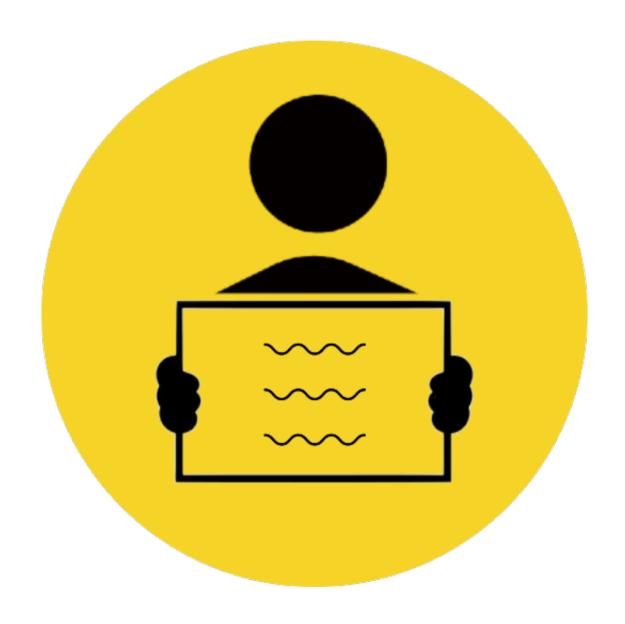
INFORMATION PROCESSING MODEL (DAN WILLINGHAM)

WORKING MEMORY BOTTLE NECK

COGNITIVE LOAD THEORY (E.G. SWELLER)



LETTER MEMORY GAME



LETTER MEMORY GAME

ABMWQ LDNB NCNNN BCNYC

LETTER MEMORY GAME

LETTER MEMORY GAME

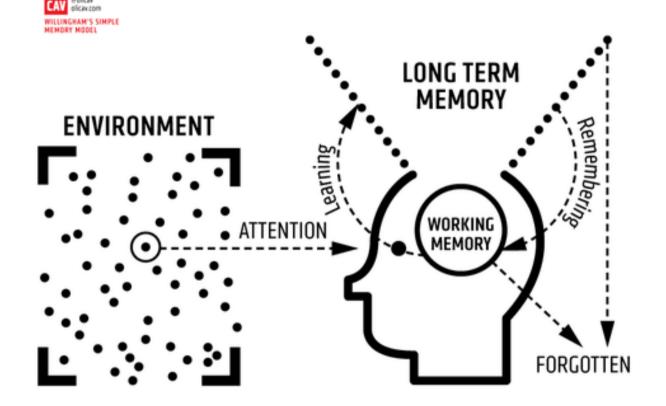
A BMW QLD NBN CNN NBC NYC

SIMPLE MODEL OF MEMORY

INFORMATION PROCESSING MODEL (DAN WILLINGHAM)

WORKING MEMORY BOTTLE NECK

COGNITIVE LOAD THEORY (E.G. SWELLER)



MULTICHOICE WHITEBOARD



Working memory most resembles _____







B. A workspace that is constantly being cleared



C. A tape recorder you can play back anytime



D. A series of photographs you can look at over and over



Working memory most resembles ______because ____.

MULTICHOICE WHITEBOARD



Working memory most resembles _____







B. A workspace that is constantly being cleared



C. A tape recorder you can play back anytime



D. A series of photographs you can look at over and over



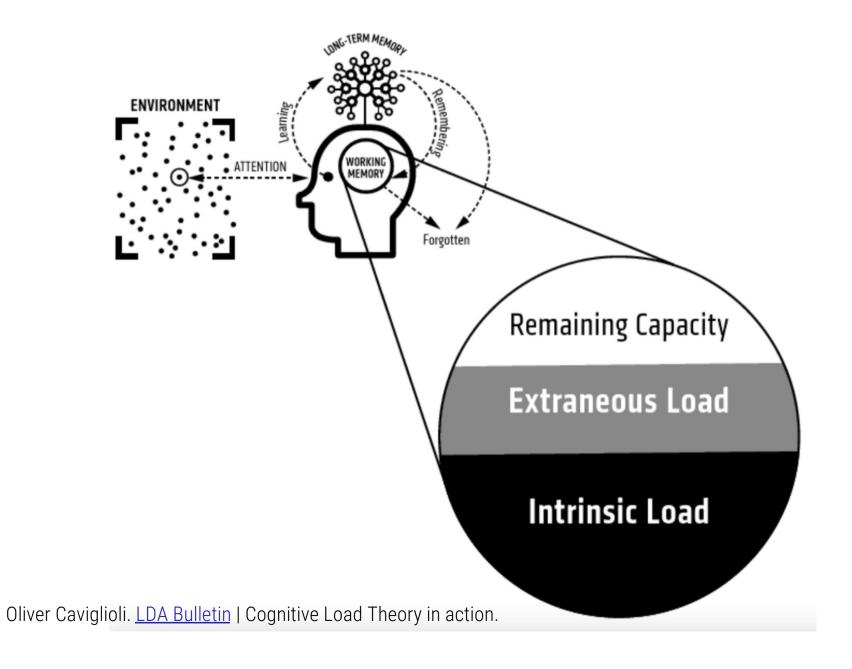
Working memory most resembles a workspace that is constantly being cleared because you can use what is there very briefly but if you change tasks, it will be gone.



COGNITIVE LOAD THEORY

"I've come to the conclusion that Sweller's **cognitive load theory** is the **single most important thing** for teachers to know" (Wiliam, 2017)

"Cognitive load theory is a series of instructional recommendations, built upon knowledge of how humans learn." (Lovell, 2020).



THE FUNDAMENTAL RECOMMENDATION OF CLT IS TO ...

OPTIMIZE INTRINSIC LOAD AND DECREASE EXTRANEOUS LOAD

LOVELL, 2020

SOURCES OF EXTRANEOUS LOAD



In pairs, take 2 minutes to brainstorm possible sources of extraneous load in the classroom.

Extraneous load can include:

- redundant information (text, pictures, sounds, videos),
- noise,
- visual distractions, and
- anything else that takes working memory resources away from core learning.



One source of extraneous load is _____.



Clue I Addition and Subtraction Snakes



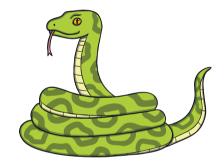
Wach's first clue to crack the code lies in the reptile enclosure. The snakes have some addition and subtraction calculations for you to work out.



Add together the 2 digits of the biggest answer. Make a note, this is your first number code.



ADDITION AND SUBTRACTION





ENGAGING

NOT ENTERTAINING





EXCELLENT INSTRUCTION





→ Engaging not entertaining



SECTIONS IN EACH OF THESE THREE

WHAT WE WANT IT TO BE (KEY IDEAS)

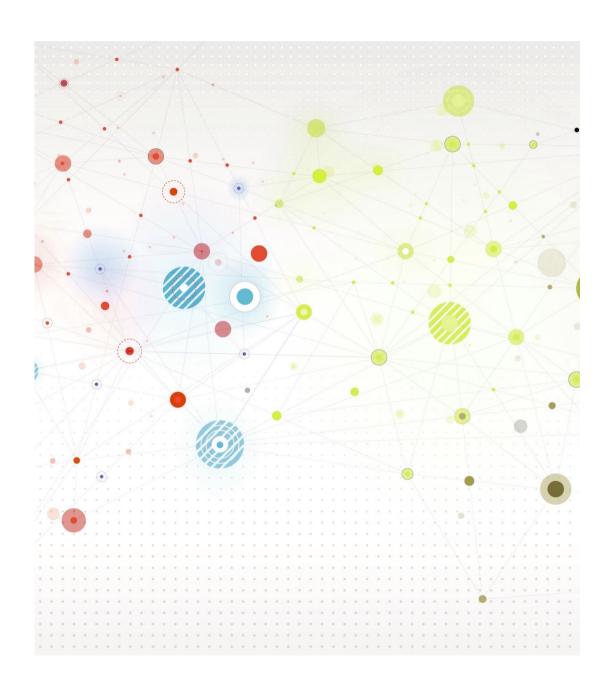
WHAT IT ENDS UP BEING (REPLACEMENT WORD),

AND EXAMPLE SCENARIOS X 2

TAKE PEOPLE THROUGH HOW TO DO IT WELL, AND USE EDI (NOT NAMED) TO DO IT

- WITH DEMO LESSON

REMINDER OF WHY IT'S A PART OF EXCELLENT INSTRUCTION





ENGAGEMENT NORMS

ENGAGEMENT NORMS

- Pronounce With Me
- Track With Me
- · Read With Me
- Gesture With Me
- Pair-Share

A→B, B→A

Attention Signal

Eyes Front, Back Straight

- Whiteboards
 Chin-it
- Complete Sentences
 Public Voice, Academic Vocabulary

DataWORKS



EXPLICIT DOESN'T MEAN BORING!





STUDENT EXAMPLE!

La Trobe University CRICOS Provider Code Number 00115M Vikings was safe from burning and looting.

The Scandinavian weather and terrain (high mountains, dense forests, many

waterways, and natural harbors) made it difficult to travel by land for the Vikings.

raids against the rest of Europe. No town, castle, or monastery in the way of the

hand, including forests and natural waterways, to become one of the greatest

seafaring cultures of their time. We will learn just how important ships were to the

Beginning in the late 700s CE and until the 1000s CE, the Vikings launched a series of

In this chapter they are going to learn how the Vikings used the resources they had at

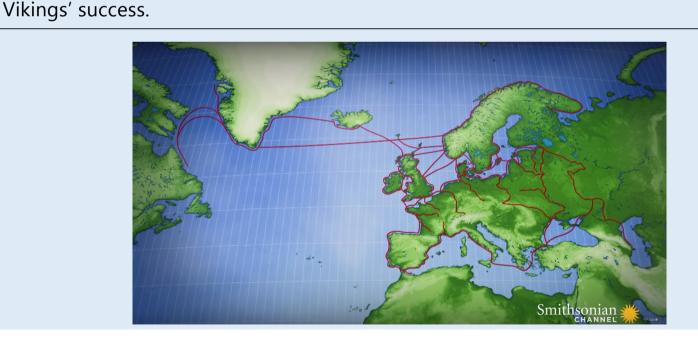
Teacher and students read together.





Apart from invading, what were the Vikings known for?

Apart from invading, the Vikings were known for ___, ___, and ___.



Vocabulary

waterways, n. rivers, lakes, fjords.

seafaring, adj. regularly travelling by sea





Teacher and students read together.

The Scandinavian weather and terrain (high mountains, dense forests, many waterways, and natural harbors) made it difficult to travel by land for the Vikings. Beginning in the late 700s CE and until the 1000s CE, the Vikings launched a series of raids against the rest of Europe. No town, castle, or monastery in the way of the Vikings was safe from burning and looting.

In this chapter they are going to learn how the Vikings used the resources they had at hand, including forests and natural **waterways**, to become one of the greatest **seafaring** cultures of their time. We will learn just how important ships were to the Vikings' success.





Apart from invading, what were the Vikings known for?

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Teacher and students read together.





Apart from invading, what were the Vikings known for?

Apart from invading, the Vikings were known for ___, ___, and ___/



Vocabulary

waterways, n. rivers, lakes, fjords.

seafaring, adj. regularly travelling by sea



TODAY'S LEARNING GOAL

I will describe how ships were important to the Viking way of life.

Video

- Watch the video
- Write notes on your whiteboards, to discuss as a class







A Young Boy's Dream

lvar did not want to leave his homeland, but he longed to sail on one of these great ships. He had listened to the stories of the old sailors. He already knew how to find his way by using the sun and the stars as guides. And he knew what to do if his ship ever got lost at sea: The Vikings had noticed that birds at sea usually flew toward land. So, they took caged birds with them on their ocean voyages. If they became lost, the sailors simply released the birds—and followed them to safety. \bigcirc

Ivar imagined what it would be like to sail on a long journey. He knew that at the beginning of the voyage, the ship sailed close to the coastline and beached on land for the evening. The sailors would light campfires and hang big cooking pots over them.

When the ship sailed into the open ocean, the voyage would become more difficult. The sea might be dotted with icebergs. The waves could be fierce. While at sea, there were no cabins on Viking ships to protect the sailors from bad weather. The sailors would be cold and wet most of the time. But when the ship was **moored**, or at anchor, a tent-like awning could be used to provide shelter.



Teacher read-aloud



Why did Vikings carry birds on their ocean voyages?



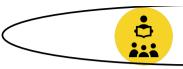
The Viking carried birds on their ocean voyages so that ___.



Viking ships were sleek and fast, but while at sea they offered little protection to the people on board.

Vocabulary

moored, v. secured in place using chains, ropes, or an anchor



Teacher read-aloud

A Young Boy's Dream

lvar did not want to leave his homeland, but he longed to sail on one of these great ships. He had listened to the stories of the old sailors. He already knew how to find his way by using the sun and the stars as guides. And he knew what to do if his ship ever got lost at sea: The Vikings had noticed that birds at sea usually flew toward land. So, they took caged birds with them on their ocean voyages. If they became lost, the sailors simply released the birds—and followed them to safety. \bigcirc

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Why did Vikings carry birds on their ocean voyages?



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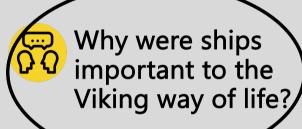
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Vocabulary

moored, v. secured in place using chains, ropes, or an anchor



Viking ships were sleek and fast, but while at sea they offered little protection to the people on board.



Check-in, before independent practice

Your task today:



Independent Reading (10-15 mins)

This is when you provide additional small group work

Read the text provided to you.

As you are reading, follow the Reading Comprehension Process:

- ask myself, does it make sense?
- resolve any unknown vocabulary and write it down

At the end of each paragraph, answer the questions to show your understanding.



STUDENT EXAMPLE COMPLETE

La Trobe University CRICOS Provider Code Number 00115M

SHOULDN'T LEARNING ALWAYS BE FUN???

- Many schools push the priority that learning should always be fun.
 - Critical View: Not all learning is always fun
 - Lemov (2020): But joy is there!
- Teacher's role: maximise opportunities for success and building a culture that values hard work, persistence, and error
- Help students to feel valued, successful and that they belong

- When things get hard for students ... Avoid this trap!
 - Don't be pressured to lower the bar.
 - Instead do the work to get your students experiencing success and a sense of trust and being valued. (add supports, break it down, build it back up)



STUDENT EXAMPLE!

Credit to DoE Employee - David Morkunas

UNITS OF TIME

years in a millenium

1000

COMPASS DIRECTIONS



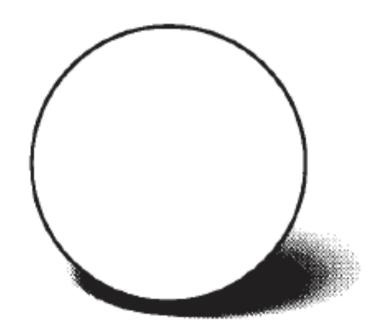
Northeast NE

UNITS OF MEASUREMENT

B

kilobytes

3D SOLIDS



sphere

UNITS OF TIME

days in October

31

UNITS OF TIME

days in September

30

SKIP COUNTING BY 9s



Let's skip count forwards by 9s, starting from 9.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----|----|----|----|----|----|----|----|----|-----|
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

SUBITISING



How many objects are there?



















Half the collection. 16

Double the collection.

Divide by 8.

MULTIPLICATION FACTS – x9



$$1 \times 9 = 9$$

$$3 \times 9 = 27$$

$$6 \times 9 = 54$$

$$10 \times 9 = 90$$

$$7 \times 9 = 63$$

$$8 \times 9 = 72$$

$$2 \times 9 = 18$$

$$5 \times 9 = 45$$

$$9 \times 9 = 81$$

$$4 \times 9 = 36$$

$$18 \times 9 = 162$$
 $5 \times 90 = 450$

$$60 \times 90 = 5,400$$

$$385 \times 9 = 3,465$$

$$66 \times 39 = 2,574$$

139
$$\times 9 = 1,251$$

VERTICAL ADDITION WITH RENAMING



With renaming:

Always start with the place furthest to the right.

"1 tended a der sue de la seque la familia de la seque la

"Rename as 1 tem dreames."

Write the terressim three terres coolumns.

Write the transdrets enterne dolumeds column.

Move to the hamdreds.

The answer is 702.

$$\begin{array}{r}
 11 \\
 356 \\
 + 346 \\
 \hline
 702$$



VERTICAL ADDITION WITH RENAMING

Write the following questions on your whiteboard vertically and solve. Make sure you say the algorithm softly to yourself while you work.



STUDENT EXAMPLE COMPLETE!

La Trobe University CRICOS Provider Code Number 00115M

EXCELLENT INSTRUCTION





 \rightarrow Engaging not entertaining





INCLUSIVE

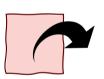
NOT EXCLUSIVE





EXCELLENT INSTRUCTION





→ Inclusive not exclusive



(Hollingsworth and Ybarra, 2018)

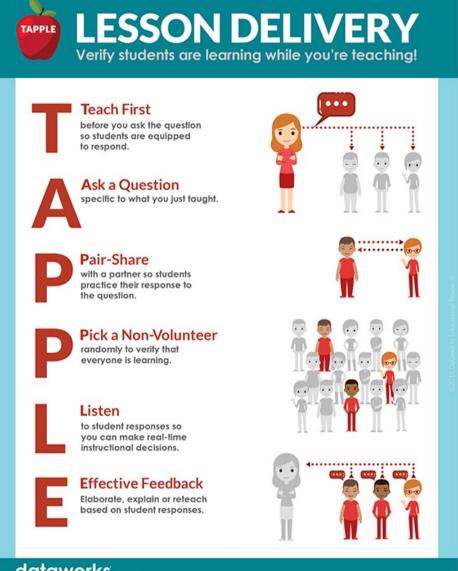




Checking for understanding is the teacher continually verifying that students are learning what is being taught while it is being taught.

TAPPLE POSTER (ONE WAY TO CFU)

(Hollingsworth and Ybarra, 2018)





STUDENT EXAMPLES!



La Trobe University CRICOS Provider Code Number 00115M



Animals need some key things in order to survive: water, food and shelter. In places where lots of animals are found, plants are often in abundance. This is because some animals need plants for food.

The areas around rivers often have many plants because there is water available for them to thrive. Trees often grow there too and provide shelter for animals. The river itself is a source of water for animals. Furthermore, many animals live in rivers, like fish. Because of these factors, rivers often support lots of wildlife.





Why might an animal choose to live near a river?



An animal might choose to live near a river because

____•



Animals need some key things in order to survive: water, food and shelter. In places where lots of animals are found, plants are often in abundance. This is because some animals need plants for food.

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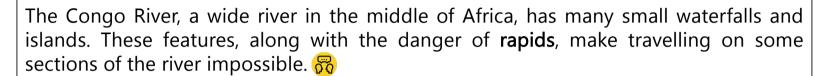
Why might an animal choose to live near a river?



An animal might choose to live near a river because there is available water and food around rivers. Trees often grow there too, which provides shelter.







In 1897, gold was discovered in Klondike, Canada. Excited travellers quickly built simple boats and travelled down the Yukon River to reach its meeting with Klondike River. Little did they know that the Yukon has several small waterfalls. Of the 800 boats that travelled the river, 150 were wrecked. Sadly, ten people drowned on the journey, confirming that the power of rivers must be respected.



Teacher and students read together.



Why would rapids make it dangerous to travel on the Congo River?



Rapids would make it dangerous to travel on the Congo River because .



Vocabulary

rapids, n. a place on a river there the water moves swiftly and violently





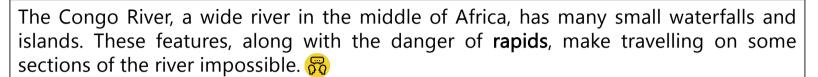
Teacher and students read together.



Why would rapids make it dangerous to travel on the Congo River?



Rapids would make it dangerous to travel on the Congo River because the water in them makes it difficult to control boats (because the water runs quickly and violently).



In 1897, gold was discovered in Klondike, Canada. Excited travellers quickly built simple boats and travelled down the Yukon River to reach its meeting with Klondike River. Little did they know that the Yukon has several small waterfalls. Of the 800 boats that travelled the river, 150 were wrecked. Sadly, ten people drowned on the journey, confirming that the power of rivers must be respected.



Vocabulary

rapids, n. a place on a river there the water moves swiftly and violently

WHERE IS INQUIRY LEARNING?

"Students should inquire from a place of knowledge"

• Whole class, explicit instruction levels the playing field.





a tributary is going to the river.

The rocks are to show peoples houses.

Irrigation of crops
he set to
the river

There is Fish in the ocean





at the base of the

Along the river

There from leafs next to the bridge

People here somewhere why do people settle close to rivers?

liver going in to the ocean.

The mouth of the river where the river goes our to the oce



STUDENT EXAMPLES COMPLETE!

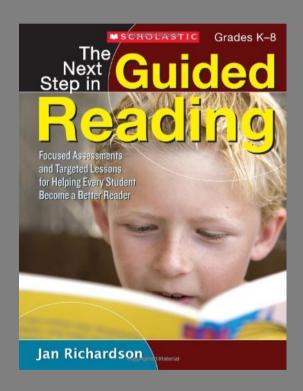
La Trobe University CRICOS Provider Code Number 00115M

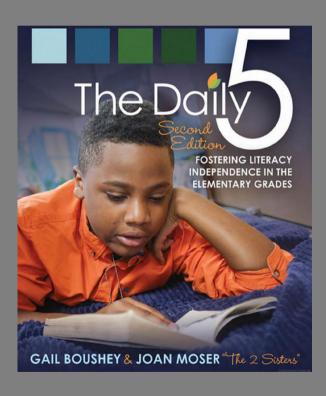
Aren't small groups best practice??

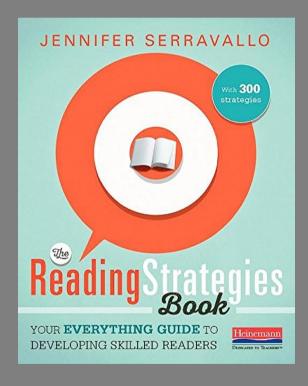




THREE PROMINENT PROFESSIONAL TEXTS







RICHARDSON (2009, P. 67)



It is true that whole-group reading instruction takes less time to prepare and deliver than guided reading instruction, but efficiency does not equate to electiveness.

They must also provide differentiated small-group instruction that targets those specific needs ... it is just not possible to meet every student's needs with a single lesson.

BOUSHEY, G., & MOSER, J. (2014, P. 74)



The average number of years our children are in age parallels the average number of minutes they can maintain attention during direct instruction- whole group, small group, or one-on-one as measured by PET scans. (p. 28)

[quoting conversation with Kenneth Wesson]

PROBLEMATIC IDEA

Students learn best in differentiated guided groups.

GUIDED READING GUIDED READING GUIDED READING

Applies to workshop model for writing, and independent maths problem solving tasks as the instruction

WHAT WE KNOW FROM RESEARCH

Whole class explicit instruction is very effective



WHAT MAKES IT PROBLEMATIC?

- Small amount of instruction only
- Missing time with the teacher!
- Lower ability groups miss out on the challenging curriculum

ADDRESSING THE IDEA with TEACHERS

- You <u>don't</u> need work individually to monitor progress or differentiate support
- Whole class = more time with teacher
- Adaptive, responsive teaching

What about differentiation?

How do you differentiate without small group instruction?

Differentiation as → built in support + extension

Differentiation as different exit points







STUDENT EXAMPLE!

La Trobe University CRICOS Provider Code Number 00115M



Decoding- use our reading tools

sigh tight

high sight

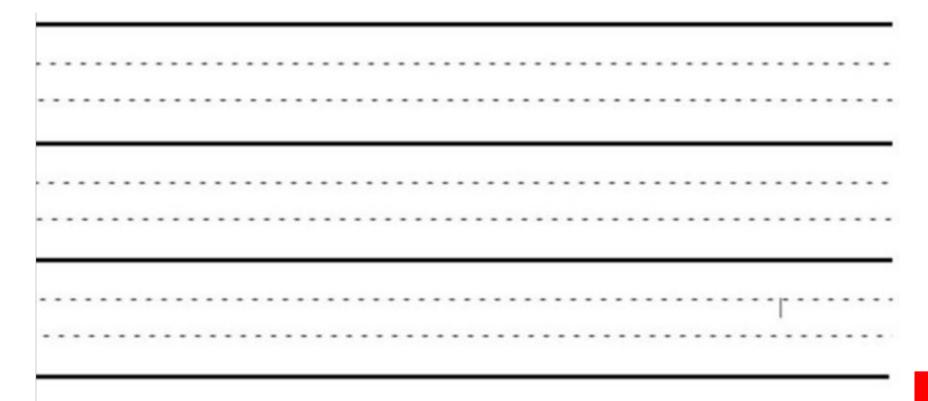
right bright

light fright

night slight







1. Say it 2. Sound it 3. Sound and Write it 4. Read it

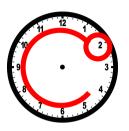


Spelling- use our spelling tools

high tight sigh bright fright

> 1. Say it 2. Sound it 3. Sound and Write it 4. Read it

Clockface (2)- lower case



d-c-c-5---

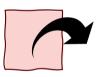
Let's play in the rain.



STUDENT EXAMPLE COMPLETE!

La Trobe University CRICOS Provider Code Number 00115M





→ Inclusive not exclusive





RESPONSIVE

NOT DISMISSIVE









→ Responsive not dismissive



TO RESPOND TO STUDENT NEEDS SHOULD WE:

(A) CATER TO STUDENT INTEREST, OR (B) BUILD STUDENT FOCUS AND CAPABILITY?

Both teachers below face a common challenge: their students are not enthusiastic about or confident with writing. However, they each try a different approach to address this issue.

TEACHER A - ANASTASIJA

Anastasija noticing the lack of interest in writing, decides to tap into their students' passion for Marvel Heroes. Believing that incorporating their interests will make writing more enjoyable and meaningful, Teacher A enthusiastically shares their plan with the class.

Despite Anastasija's initial enthusiasm and efforts to engage the students with writing through Marvel Heroes, the outcomes were not as expected.

The students did write some piecemeal pieces about their favourite heroes, but the writing tasks lacked depth, structure, and meaningful learning experiences. As the days passed, it became evident that the students were not growing as writers, and their motivation for writing remained stagnant.

TEACHER B - KIARA

Kiara, understanding the struggle her students faced with writing, decides to take a gradual and supportive approach to build their writing skills.

"Students, I know that writing can be challenging and overwhelming at times, but don't worry; we'll figure it out together step by step! We'll start by focusing on one aspect at a time, and once we feel confident in that aspect, we'll add more elements to our writing. Remember, each of you is capable of learning, and we'll celebrate every success along the way!"

As the weeks passed, Kiara's step-by-step approach and individualised support proved to be transformative, as the students' writing skills flourished, and their newfound confidence and motivation for writing shone through in the imaginative stories they crafted.



STUDENT EXAMPLE!

La Trobe University CRICOS Provider Code Number 00115M Week 5

Introduction to Appositives



This is Melbourne. Melbourne is a place and so it is a <u>Noun</u>.

We can describe further it by using different noun phrases.

For example:

a coastal city the capital of Victoria a famous Australian city the world's most liveable city





Teacher reads aloud



Canberra is the name of another place. What other noun phrases could we use to describe it?



Some noun phrases we could use to describe Canberra are:



TODAY'S LEARNING GOAL

I will add appositives to basic sentences.



Appositives





Teacher and students read together.



Can you think of a noun phrase to describe the dog in this sentence?

The dog chased the ball.



Examples may be:

The dog, a slobbering beast, chased the ball.

The dog, a cute poodle, chased the ball.

The dog, an excited furball, chased the ball.



An appositive is a noun phrase that can be included after a noun, to provide more information.

An example of a simple sentence could be: Kaleb drove the truck.

More information about the noun, Kaleb, could be: The dedicated postman. Both the word Kaleb and the noun phrase the dedicated postman are talking about the same thing.

This would look like this: Kaleb, the dedicated postman, drove the truck.

We have created a sentence that includes an appositive!

Notetaking





Teacher Models Left Example, Students Complete Right Example

La Trobe University is my place of work.

La Trobe University, a centre for innovative research and teaching, is my place of work.

Melbourne is the home of the AFL.



Melbourne, the capital of Victoria is the home of the AFL.

STEPS

- 1. Read the whole sentence.
- 2. Identify the head noun.
- 3. Think of a noun phrase the you could use as an appositive.
- 4. Write the appositive in and bracket it with commas.

Your task today









Letters



Add an appositive to the following sentences and underline it.

- 1. Soccer is played across the globe.
- 2. Sydney is a tourist hub.

STEPS

- 1. Read the whole sentence.
- 2. Identify the head noun.
- 3. Think of a noun phrase the you could use as an appositive.
- 4. Write the appositive in and bracket it with commas.

SUCCESS?

- ☐ Can explain what an appositive does?
- ☐ Can identify an appositive?
- ☐ Can add appositives after nouns in sentences?



STUDENT EXAMPLE COMPLETE!

La Trobe University CRICOS Provider Code Number 00115M

HIGH EXPECTATIONS TLAC TECHNIQUE 61 WARM/STRICT

What if I don't like the word 'strict'?

The "Warm" Aspect:

- 1. Building positive relationships with students
- 2. Demonstrating care, empathy, and respect
- 3. Creating a supportive and welcoming classroom environment

The "Strict" Aspect:

- 1. Setting clear expectations and boundaries
- 2. Establishing consistent rules and consequences
- 3. Providing a structured and disciplined learning environment

Combining Warmth and High Expectations:

- 1. Believing in students' potential and capabilities
- 2. Supporting student growth and achievement
- 3. Creating a conducive learning environment for academic and social success





→ Responsive, not dismissive







→ Engaging, not entertaining



INCLUSIVE EXCLUSIVE



→ Inclusive, not exclusive



RESPONSIVE





→ Responsive, not dismissive



ENGAGING



→ Engaging, not entertaining

INCLUSIVE



→ Inclusive, not exclusive

RESPONSIVE



→ **Responsive**, not dismissive



4 E IMPLEMENTATION MODEL

SIMON BREAKSPEAR







HOW DO WE LEAD FOR INSTRUCTIONAL EXCELLENCE?

4 E IMPLEMENTATION

STAGE 1 EXPLORING

STAGE 3

3 EXPANDING

STAGE 2 EXPERIMENTING

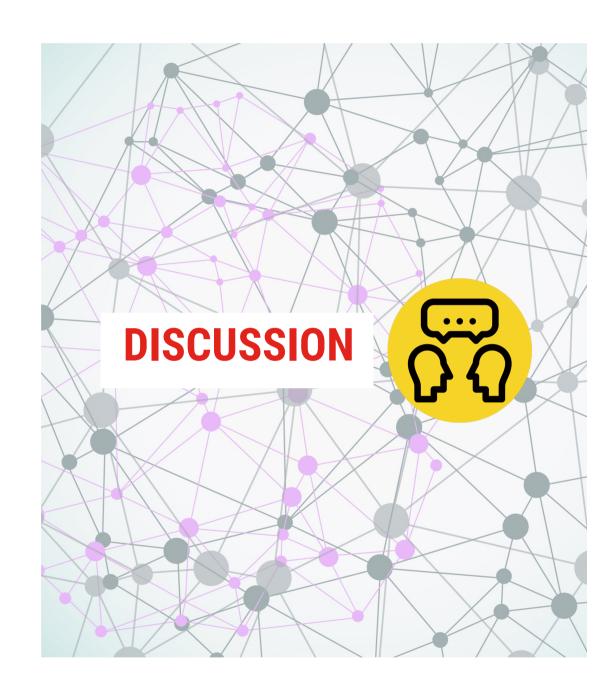
STAGE

4 EMBEDDING

SIMON BREAKSPEAR

REFLECTION AND NEXT STEPS

- What resonated with you?
- What challenged you?
- What opportunities are there?
- What barriers can you foresee?





SOLAR LAB
Science of Language
and Reading Lab



DR NATHANIEL SWAIN

@NathanielRSwain

SENIOR LECTURER – LEARNING SCIENCES AND LEARNER ENGAGEMENT







Cognitorium

ACCESS SLIDES, STAY IN TOUCH

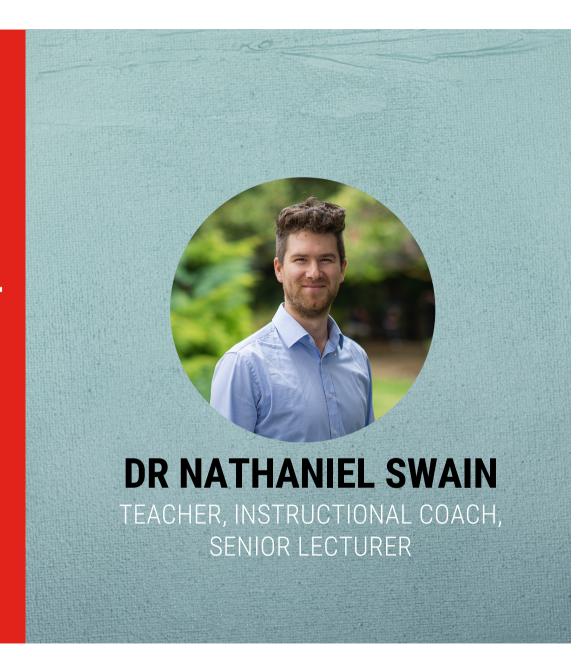




LEADING INSTRUCTIONAL EXCELLENCE FOR SCHOOL IMPROVEMENT

INNER GIPPSLAND AREA

8 AUGUST 2023





THANK YOU

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