



# CHANGING THE WORLD ONE WORD AT A TIME.

*Rose Garofano - Australia  
Asheeka Nand - Australia*

*The Future of Education Conference  
Florence, 2023*



# INTRODUCTION

*Historically ...*

*The development of literacy skills among students has played a crucial role in shaping societies, expanding knowledge, and promoting social mobility. Over the past 30 years, literacy development in education systems has undergone significant evolution and transformation.*

# LITERACY INSTRUCTION

*The teaching of literacy being has become more student-centred, interactive, and technology driven. These more advanced approaches aim to foster critical thinking, creativity, and digital literacy skills.*

*However, the teaching of vocabulary, has had less intensive change and consequently, remains a barrier for adolescents to access effective instruction of reading and writing.*



*In the high school setting, literacy approaches traditionally focus on the development of reading comprehension and writing. These approaches aim to equip students with the fundamental abilities necessary for academic success and future endeavours.*

# LITERACY INSTRUCTION

*The initial literacy approaches commonly employed in the high school environment on improving student's reading comprehension skills were developed through exposure to a variety of literary genres, including fiction, non-fiction, poetry, and plays, usually situated within the English or literature studies classroom.*



*Positioning literacy as a whole-school responsibility in a school policy is responsive to the need to give close consideration to the fostering of student's literacy skills and attitudes across learning areas (Merga, 2023). In Australia, literacy beyond the subject of English is an Australian curricular expectation (Merga, 2023).*



# VOCABULARY INSTRUCTION

*Briefly elaborate on what you want to discuss.*

*Historically, a strong link exists between vocabulary knowledge and reading comprehension, dating back to factor-analytic studies (Carroll, 1971; Davis, 1944; Singer, 1965; Spearritt, 1972). This link created the illusion that problems in comprehension could be addressed by promoting learning word meanings, mostly in the form of definitions (Beck & McKeown, 1991).*

# ADULT LITERACY

*Briefly elaborate on what you want to discuss.*

*The Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), defines literacy as the ability to understand, evaluate, use and engage with written texts to participate in society, achieve one's goals, and develop one's knowledge and potential.*

PIAAC in 2012 reported that around 15.5% of adults aged 16 to 65 were assessed as having low literacy skills: they scored at or below Level 1 on the scale that measures literacy proficiency.

There is a relatively large gap between the most and least proficient adults in literacy and numeracy, as was the case among 15-year-olds in PISA (OECD, 2017). For example, 46.9 per cent of Tasmanian women have the lowest levels of functional literacy in all of Australia (ABS, 2013).



# EXPLICIT VOCABULARY INSTRUCTION

*While comprehension is complex, involving the coordination of multiple cognitive processes and knowledge, the lynchpin of deep comprehension is word knowledge (Perfetti & Stafura, 2014). Word knowledge and reading comprehension are intimately linked (e.g., Adlof, Catts, & Little, 2006; Cromley & Azevedo, 2007; Tannenbaum, Torgesen, & Wagner, 2006) as abundant high-quality lexical representations characterize skilled readers relative to less skilled readers (Perfetti, 2007).*



# TIER VOCABULARY

*Beck & McKeown*

*The explicit teaching of vocabulary by identifying high frequency, academic, technical, and low frequency categories. Academic words are words common across domains of academic texts, as exemplified by Coxhead's (2000) AWL.*

(Beck & McKeown, 1985; Beck, McKeown, & Kucan, 2002, 2013).

3

## **Tier 3 – Technical Words**

*Words that relate to a specific topic or subject area but not common beyond it.*

2

## **Tier 2 – Academic Words**

*General words that appear across domains and that characterize text rather than conversational language*

1

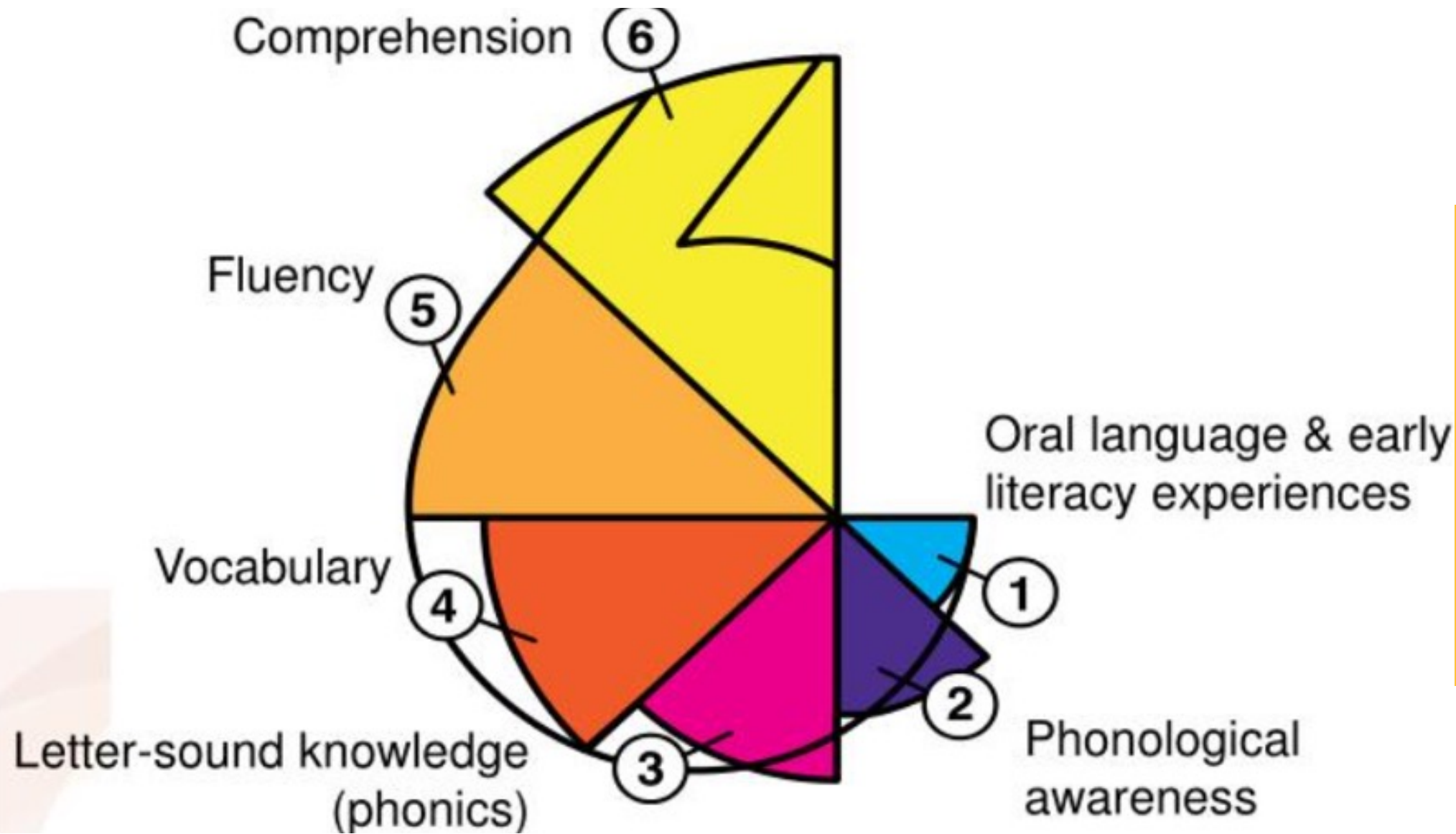
## **Tier 1 – Conversational words**

*Every day words that don't require explicit teaching because students acquire them through their daily interactions.*

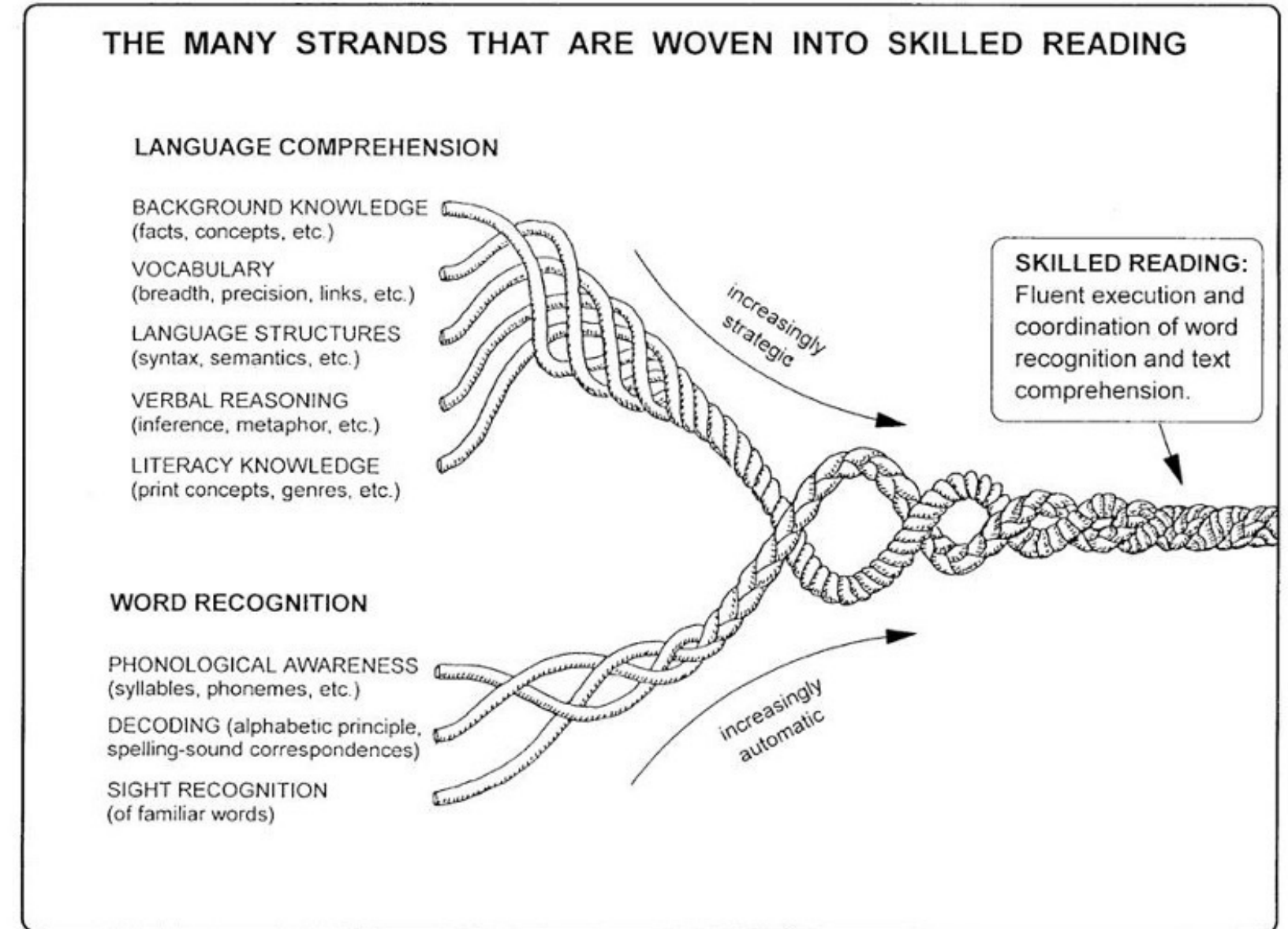


# GROUNDED THEORY

G



The Big Six in Reading - Kilpatrick 2015



Scarborough's Reading Rope 2001

# THE GAP

*There is a distinct need for greater teacher collaboration across learning areas more frequently to breakdown perceived barriers of insecurity through the establishment of structured professional learning communities to facilitate dialogue about literacy challenges.*



# Academic Project



# What is NAPLAN?

The National Assessment Program – Literacy and Numeracy (NAPLAN) is an **annual** national assessment for all students in Years 3, 5, 7, and 9, and is the only **nationwide assessment that all Australian children undertake.**

It's a **measure** to see whether or not young Australians are developing the **literacy and numeracy skills** that provide the critical foundation for other learning, and for their productive and rewarding participation in the community.

All government and non-government education authorities have contributed to the development of NAPLAN materials.

# What is the Higher School Certificate?

The Higher School Certificate (HSC) is the **highest educational award in New South Wales schools.** It is awarded to NSW students who have **satisfactorily** completed Years 11 and 12 at secondary school. To be eligible, students must **meet HSC course requirements and sit for the statewide HSC examinations.** The HSC is an internationally recognised credential that provides a strong foundation for students wishing to **pursue tertiary qualifications, vocational training or employment.**



# THE PROBLEM

Inconsistency across KLA

Literacy across all stages and KLA

Gap between NAPLAN results  
and HSC results

Adaptive testing and access  
to higher band questions

Other like schools vs our NAPLAN  
results → Not competitive



**DATA**

# YEAR 5 WRITING

## Average NAPLAN Score - School, SSSG and State

Calendar Year	Avg Score School	Avg Score SSSG	Avg Score State	No of Students School	No of Students SSSG	No of Students State
2013	489.2	506.41	484.84	81	2814	89641
2014	498.4	497.36	474.57	85	3303	90998
2015	502.2	504.19	484.12	79	2739	91789
2016	489.2	499.87	477.94	82	3012	95600
2017	482.7	504.19	478.42	83	3029	99293
2018	479.0	496.07	471.26	83	3318	101521
2019	492.0	497.01	480.15	84	3073	100949
2021	486.1	508.23	489.11	112	3594	101883
2022	507.6	524.18	493.07	111	3446	100209
<b>Total</b>	<b>492.1</b>	<b>504.05</b>	<b>481.54</b>	<b>800</b>	<b>97092</b>	<b>870477</b>

Add a main point

Add a main point

Add a main point

# YEAR 7 WRITING

## Average NAPLAN Score - School, SSSG and State

Calendar Year	Avg Score School	Avg Score SSSG	Avg Score State	No of Students School	No of Students SSSG	No of Students State
2013	536.7	548.12	517.62	202	4889	89753
2014	545.2	545.80	513.23	202	4727	88628
2015	525.9	545.86	512.10	154	4377	89222
2016	540.6	545.67	515.77	190	4979	90643
2017	537.2	549.33	517.06	185	4961	91611
2018	534.7	543.61	515.43	203	5253	95141
2019	531.6	543.50	519.81	219	5555	98640
2021	540.3	559.48	532.25	227	5601	99261
2022	555.3	564.93	540.28	231	5653	97015
<b>Total</b>	<b>539.2</b>	<b>550.23</b>	<b>520.88</b>	<b>1813</b>	<b>98878</b>	<b>839421</b>

Add a main point

Add a main point

Add a main point



# YEAR 9 WRITING

## Average NAPLAN Score - School, SSSG and State

Calendar Year	Avg Score School	Avg Score SSSG	Avg Score State	No of Students School	No of Students SSSG	No of Students State
2013	589.5	590.49	555.09	154	4641	87167
2014	584.5	587.13	549.51	175	4702	87328
2015	568.3	584.61	545.96	192	4368	87515
2016	579.1	585.31	547.39	194	4785	86388
2017	576.3	599.34	559.50	165	4731	88138
2018	601.3	587.50	554.76	188	4884	88761
2019	568.4	581.61	555.62	191	5081	88990
2021	565.8	588.77	559.98	225	5420	94504
2022	576.5	595.81	569.82	229	5477	93190
<b>Total</b>	<b>578.3</b>	<b>589.48</b>	<b>555.60</b>	<b>1712</b>	<b>95272</b>	<b>801602</b>

Add a main point

Add a main point

Add a main point

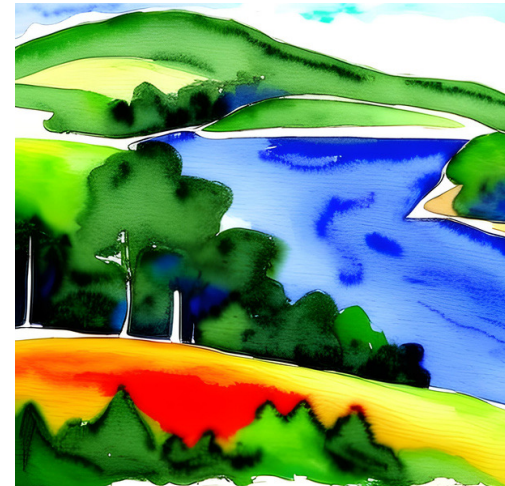
1	Audience	0-6	The writer's capacity to orient, engage and affect the reader
2	Text structure	0-4	The <u>organisation</u> of narrative features including orientation, complication and resolution into an appropriate and effective text structure
3	Ideas	0-5	The creation, selection and crafting of ideas for a narrative
4	Character and setting	0-4	Character: the portrayal and development of character Setting: the development of a sense of place, time and atmosphere
5	Vocabulary	0-5	The range and precision of language choices
6	Cohesion	0-4	The control of multiple threads and relationships over the whole text, achieved through the use of referring words, substitutions, word associations and text connectives
7	Paragraphs	0-2	The segmenting of text into paragraphs that assists the reader to negotiate the narrative
8	Sentence structure	0-6	The production of grammatically correct, structurally sound and meaningful sentences
9	Punctuation	0-5	The use of correct and appropriate punctuation to aid reading of the text
10	Spelling	0-6	The accuracy of spelling and the difficulty of the words used

# WHO?

Year 8



*Personal Development,  
Health and Physical  
Education*



*GEOGRAPHY*



*SCIENCE*

The number of road deaths per 100,000 in NSW has dropped from 28.9 per 100,000 population in 1970 to 4.4 in 2019.

"Explain why the number of road deaths have reduced in NSW over the past 5 decades?"

I STRONGLY BELIEVE THE ROAD DEATHS HAVE DROPPED SINCE 1970? BECAUSE TECHNOLOGY HAS ADVANCED AND CARS HAVE ULTIMATELY GOTTEN SAFER AND MORE DURABLE AND CRASH RESISTANT.

I BELIEVE CARS ARE SAFER NOW THAN THEY WERE IN 1970 BECAUSE OF 3 MAIN FACTORS, MATERIAL, DESIGN AND ENGINEERING.

THE FIRST OF THESE MAIN FACTORS IS MATERIAL, SINCE THE 70s, WE HAVE FOUND STRONGER AND MORE DURABLE MATERIALS, RATHER THAN BEING MADE OUT OF THE SAME OLD SHEET STEEL, IT CAN NOW BE MADE OUT OF METALS LIKE CARBON, PLASTICS AND MORE

**PDHPE**

**85 Words in total**

Tier 1 = 72 (85%)

Tier 2 = 10 (11%)

Tier 3 = 3 (4%)

**Target:**

In written work 60% of words should be made up of Tier 2 and Tier 3.

For the animal you have chosen for your Threatened Species assessment task answer the following question:

"Explain the role your chosen animal has in its natural environment?"

143 The <sup>T3</sup> Sumatran <sup>T1</sup> tiger <sup>T2</sup> is a tiger located on a small <sup>T1</sup> island <sup>T1</sup> off Indonesia called Sumatra. The tiger is one of the <sup>T2</sup> Apex <sup>T2 - can be explicit</sup> predators <sup>T2</sup> in the <sup>T2</sup> wild. With this in mind the tiger has a key <sup>T2</sup> role to its natural environment <sup>T2</sup> in many ways. <sup>part</sup>

101 Being one of the top predators, the Sumatran tiger drastically helps the <sup>T3</sup> biodiversity and <sup>T1</sup> health of the <sup>T3</sup> ecosystem. If the tiger would go <sup>T3</sup> extinct not only with the biodiversity and health <sup>T2 (decline)</sup> plummet it will increase all the <sup>T2</sup> pray <sup>T2</sup> of the <sup>T2</sup> certain tiger and <sup>T2</sup> decrease <sup>T1</sup> plants and other animals <sup>T2</sup> of what the tigers <sup>T2</sup> pray eat. <sup>general</sup> <sup>particular - single out.</sup>

57 As the role of the tiger is to help the ecosystem and to keep the food chain <sup>T2</sup> in-tack <sup>T2</sup>, the tiger has a more important role than you actually think. With only 400-600 left in the wild, these <sup>T2</sup> horrific things that could happen, are becoming more of a <sup>T2</sup> reality. To save these <sup>T2</sup> endangered animals we <sup>T2</sup> much take action <sup>T2</sup> now.

## Science

143 Words in total

Tier 1 = 118 (82%)

Tier 2 = 20 (14%)

Tier 3 = 5 (4%)

Target:

In written work 60% of words should be made up of Tier 2 and Tier 3.

## Place and Liveability Writing Task

Explain why people's opinions of a place's liveability might be different and change over time?

Peoples opinions of places and their livability has changed overtime and plays a key role in where people decide to stay and live. There are many different reasons why peoples opinions change and they are as follows.

Population / Job opportunities. With many people finding it hard to get a job nowadays, people would find places with many people and more job opportunities more livable than a country. People we are talking about would be aged around 18-40 who might be looking for their first job or new job.

Natural disasters / Safe place. Many places around the world experience deadly and life threatening disasters which makes them flee from their country, for example syria. With saying that, japan has loads of natural disasters but many people live there due to the job opportunities and amusement.

The reason peoples opinions has changed over time is most because of personal issues and factors this could be the ones we started or many different ones. What we can say about peoples opinions on livability is that everyone has different opinions no matter the time, place, and scenario.

## Geography – Sample 1

182 Words in total

Tier 1 = 118 (82%)

Tier 2 = 20 (14%)

Tier 3 = 5 (4%)

### Target:

In written work 60% of words should be made up of Tier 2 and Tier 3.

# ASSIGNING WORDS TO TIERS IS CHALLENGING - EVEN FOR THE EXPERT!

Tuesday, 23 May 2023



Nand, Asheeka (St Augustine's College - Sydney) 23/05 9:05 pm

The Core Vocabulary: The Foundation of Proficient Comprehension

"Assigning words to tiers can be hard, however, even for expert."

*We are not alone in this!*

The Core Vocabulary: The Foundation of Proficient Comprehension - Hiebert - 2020 - The Reading Teacher - Wiley Online Library

<https://ila.onlinelibrary.wiley.com/doi/full/10.1002/trtr.1894>

See less



↩ Reply

# STRATEGY - ACTION RESEARCH





# PROCESS

## Term 2 - Action Research Foundation Strategy

- Step 1 - Select and upskill your team - Members of Pilot
- Step 2 - Identify the data point (pre-test Week 2: categorising tiers of vocabulary)
- Step 3 - Implement the strategy (explicit teaching) for a period of time
- Step 4 - Check in weekly with your champions (can be an online check in or a passing conversation)
- Step 5 - Post -test (Week 7-8) - track growth (categorising tiers of vocabulary)
- Step 6 - Focus group feedback - collect feedback from students/team
- Step 7 - Prepare for second cycle

# PROCESS

## Action Research Foundation Strategy

### Term 3 - Pilot program

- Second iteration of pilot - This will allow the team to make adjustments and implement adjustments.
- If none are required, opt to identify a new set of champions in order to run the pilot a second time.

### Term 4

- Reflection, research and preparation for program implementation in 2024.

# The **cognitive science** behind **Rosenshine's Principles of Instruction**

by @Inner\_Drive | innerdrive.co.uk



Learning Intention:  
*Describe/explain/discuss XXXX so that we can XXXX (application).*

Describe the anatomy of the kidneys so that we can understand the importance of salt balance in the body.

Review of previous learning

Concentration gradients  
Osmosis  
Diffusion

Spaced Practice

Quick draw – dialysis tubing experiment

What do students need to learn?  
*(content/values/skills strands)*

Module 6 - Kidneys

Vocabulary and etymology

Passive and active transport  
Nephron  
Concentration gradient

Key questions/Misconceptions

The body is a donut – but does water go straight to our bladder?  
Salt is bad for you – but is it?

Support

Support in 'starting' for two S's

Extend

Sasha – what could go wrong and how could you fix it?

Checking For Understanding

Diffusion, osmosis, concentration, dilute, solute, solvent, ions, filtrate

Starter – blooket from previous lesson (keep it to 4 mins)

Teacher modelling and worked/faded examples

Animation of filtration and reabsorption – stopping at each piece.

Independent Practice

Student to draw and annotate a diagram of the Kidney. Can use the animation.

Scaffolding

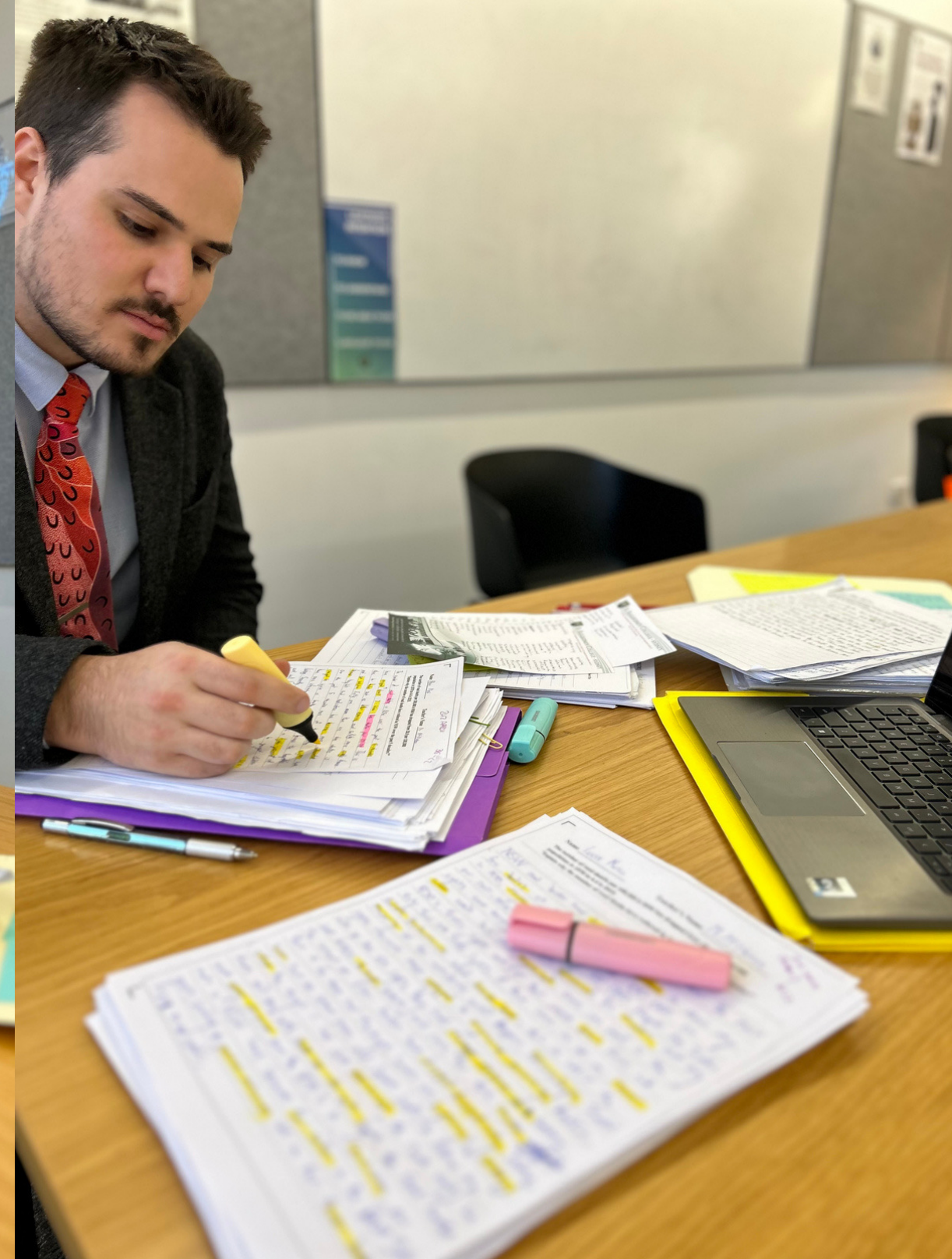
Seating Plan

Inclusion Grid









# Teacher PD



# QUESTIONS



**Rose  
Garofano**



*Do not go gentle into that good night,  
Rage, rage, against the dying of the  
light.*

*Dylan Thomas*



**Asheeka  
Nand**



*our fav quote*



# CONTACT US

## EMAIL US

rose.garofano@mq.edu.au

anand@saintaug.nsw.edu.au

## CONNECT WITH US

[add linkedin details here](#)

The background is a golden-yellow architectural drawing. It features various technical details such as floor plans, sections, and dimensions. Faintly visible are the words 'BASIS 1:100' at the top, 'SECTION 1-1' in the middle, and 'SECTION 1-1' at the bottom. There are also labels like 'MZ1', 'MZ2', 'MZ7', 'P1' through 'P11', and 'P7'. The drawing is overlaid with semi-transparent images of hands: one hand at the top left holding a pencil, another at the top right, and a third at the bottom right also holding a pencil. A ruler is visible on the left side. The overall composition is professional and technical.

**THANK YOU**