Starter – Guess the next word in sequence

Level 1

Light	Light
H_us_	House
Pl__t	Plant
R__t	Root
B___	Beer
M__	Mug
Sh__	Shot
G_ass	Glass

Level 2

Hint: think money

Coin	Coin
B__k	BanK
N___	Note
B___	Book
S____	Store
C_____	Credit
C___	Card
H_____	Holder

Level 3: Challenge

Spider	Spider
W__	Web
D_____	Design
S_____	Studlo
A_____	Apartment
S_____	Search
E_____	Engine
B____	Block
P_____	Party

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Building Flow in Secondary School Mathematics Classrooms

Joel Pinto and James Dann, Brighton Grammar School

‘To be in flow’
‘To be in the zone’

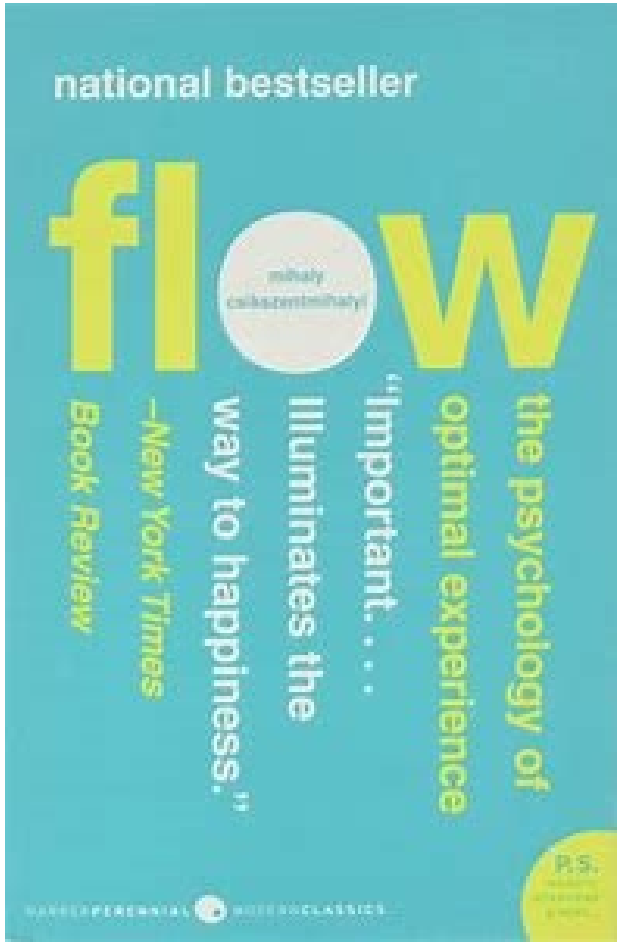
“I’m cooking sir”

- What does this mean to you? What elements in the starter got you into flow?
- 2 minute Turn and Talk

What is flow?

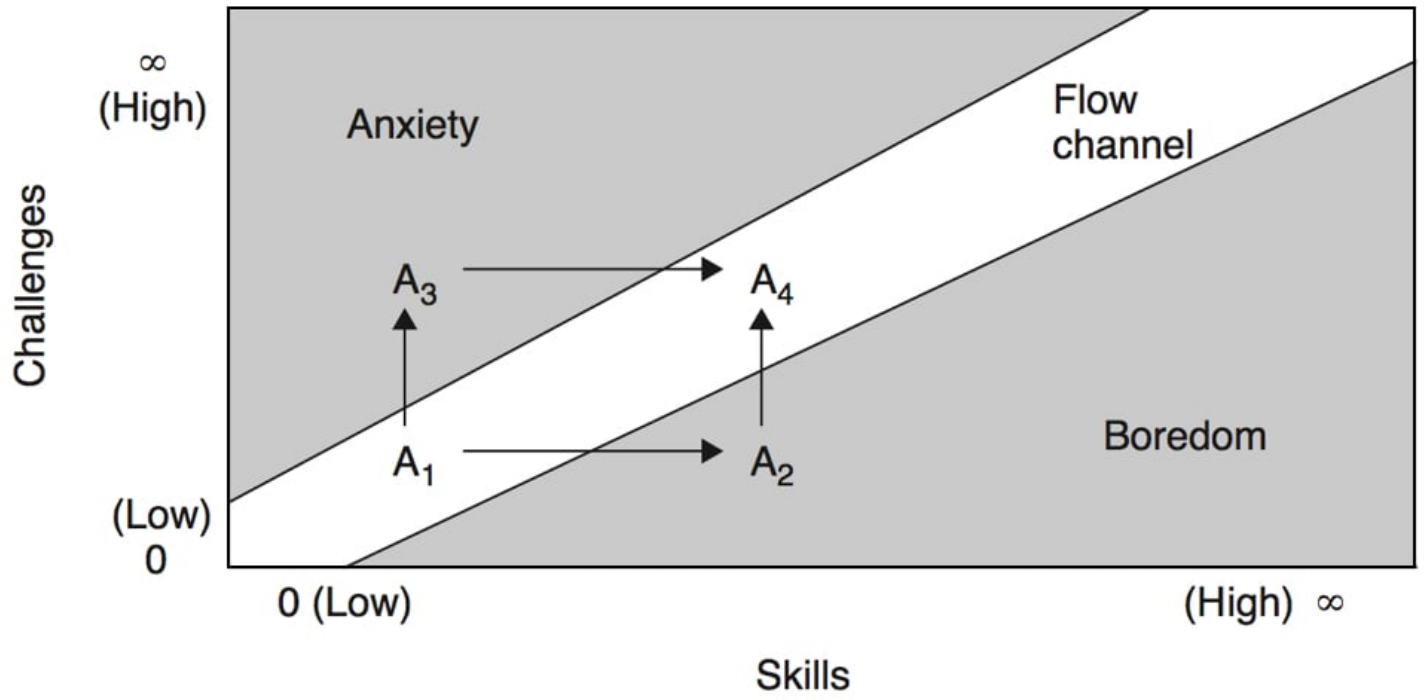
Flow theory - Mihaly Csikszentmihalyi

Flow is what describes this peculiar feeling of complete involvement with what you're doing which comes when you're paying attention to a goal....this concentration and what goes on in the moment is the experience of flow. (Chapter 1)



A very positive psychological state that typically occurs when a person perceives a balance between the challenges associated with a situation and their ability to meet the demands of the challenge and accomplish. (Beard 2014)

A state of optimal motivation (Deci and Ryan 2008)



The Flow. After Mihaly Csikszentmihalyi, *The Flow (1990)*, p. 74

What actions or behaviours do you see in your classroom when students are not in the flow channel?

2 minute pair and share

Factors that affect flow

Chapter 2

1. A clear goal

2. Feedback

3. Challenges that match the skills

4. Concentration – avoiding the distractions to devote all your energy to the task at hand.

5. Focus – disciplining one's self to narrowly zone in on a single task to do it well.

6. Control – sense the possibility of control.

7. Loss of Self-consciousness

8. Transformation of time

Strategies to achieve flow

A Clear goal:
Learning Intentions and Success Criteria

Chapter 3:

“Obstacle to flow – Lack of clarity…….Clarity of goals is a critical element of flow since any goal pursued with concentrated effort can provide a transformative experience making anything you do more interesting”

1. Learning Intentions

2. Topic Success Criteria (TSCs)

Or

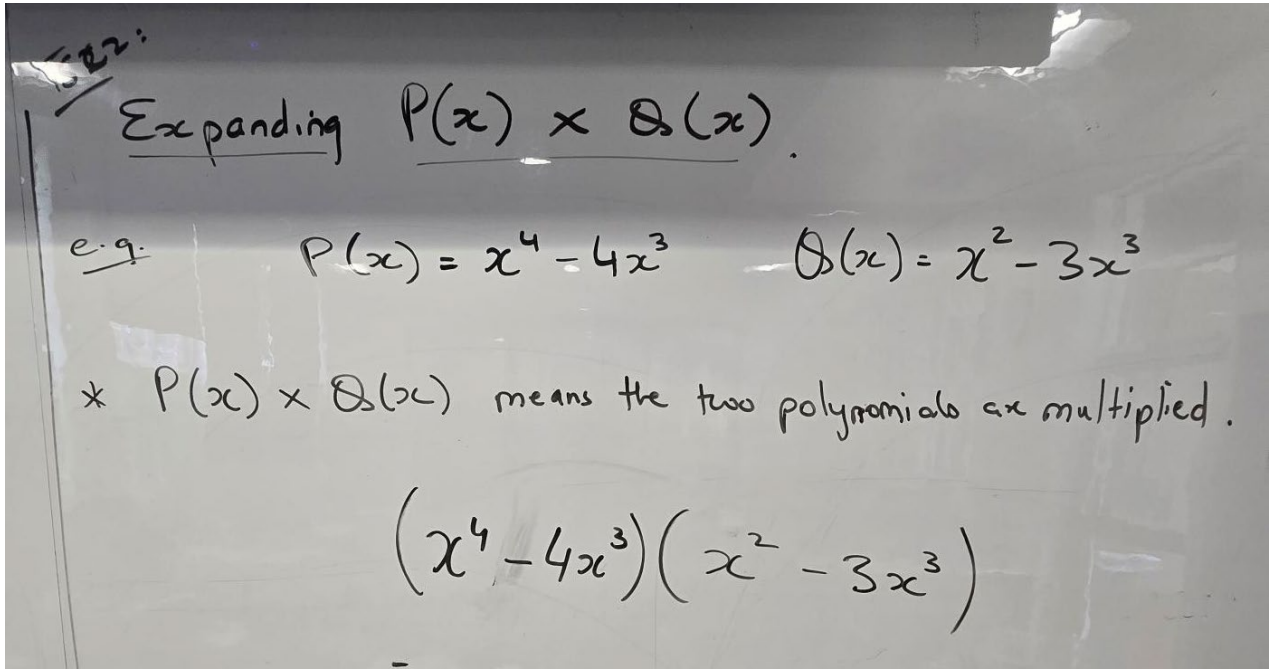
3. Lesson Breakdown

Topic Success Criteria – Self-Assessment Checklist

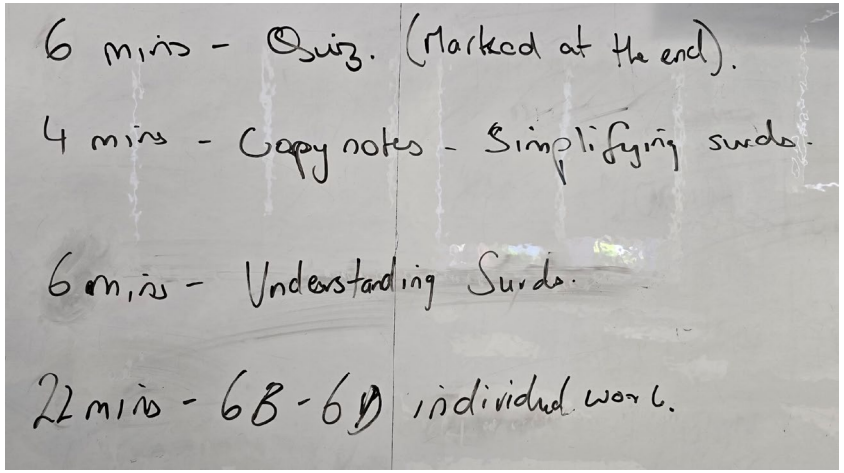
1. I can convert between logarithmic equations and exponential equations. Sample Question Write an equivalent statement to the following (a) $\log_{10} 1000 = 3$ (b) $2^5 = 32$	10A: 1–2
2. I can evaluate simple logarithms without a calculator. Sample Question Evaluate the following logarithms without a calculator. (a) $\log_2 8$ (b) $\log_5 625$ (c) $\log_3 \frac{1}{9}$ (d) $\log_{10} 0.001$	10A: 4–5
3. I can evaluate logarithms using a CAS calculator. Sample Question Evaluate, correct to three decimal places, using a calculator. (a) $\log_{10} 7$ (b) $\log_{10} 0.5$	10A: 6

Unit plans outline lesson intentions and topic success criteria

10. I can expand and simplify polynomials in the form of $P(x)\times Q(x)$.	10E: 4–6
Sample Question	
If $P(x)=x^2+x-1$ and $Q(x)=x^3+2x+3$, expand and simplify the following.	
(a) $P(x)\times Q(x)$ (b) $(Q(x))^2$	



Lesson Breakdown



Unsubstantiated claim: if you give timings that are not multiples of 5, students are more likely to work to the time.

Routines for concentration and control (and to minimise anxiety)

Chapter 10: Routines

"develop habits that all successful people have…habits of discipline which force our attention into ROUTINES that bypass the big problems that would capture our energy."

"Develop ways of getting started with our work that bypass the dread which waits for us if we don't find ways of illuding it."

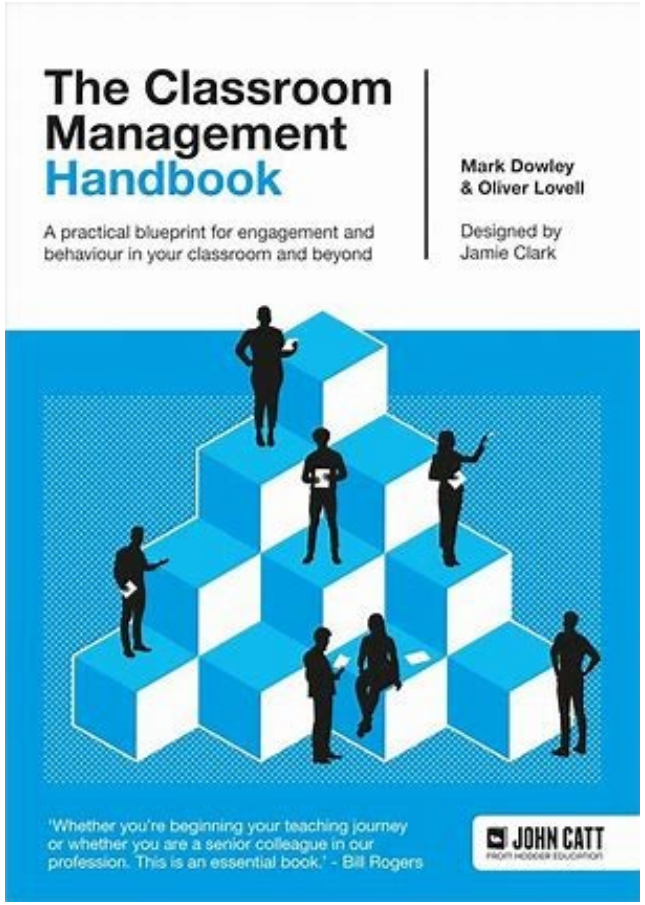
Routines that 'force their mind into some kind of channel that will have the concentration once you start working'

"Automatic pilot"

Class snippet…

Any observations from this routine….

Developing your own routine



Routines

Tool	Examples	How might you do it in your context?
1. Prime	"Good morning. Im looking forward to seeing a focused and productive entry"	
2. Make expectations explicit	"Enter silently"	
3. Check for behavioural understanding	"Whats the first expectation Jack?"	
4. Threshold	"Enter silently thank you."	
5. Positive Naration	"Jack, good start"	

- Individual reflection time – Plan a routine for one class in 2025. (Use a lesson plan template)

Flow in note-taking

Prior knowledge – Reduce anxiety as students have skills to match the challenge

Gradual release of responsibility model is to:

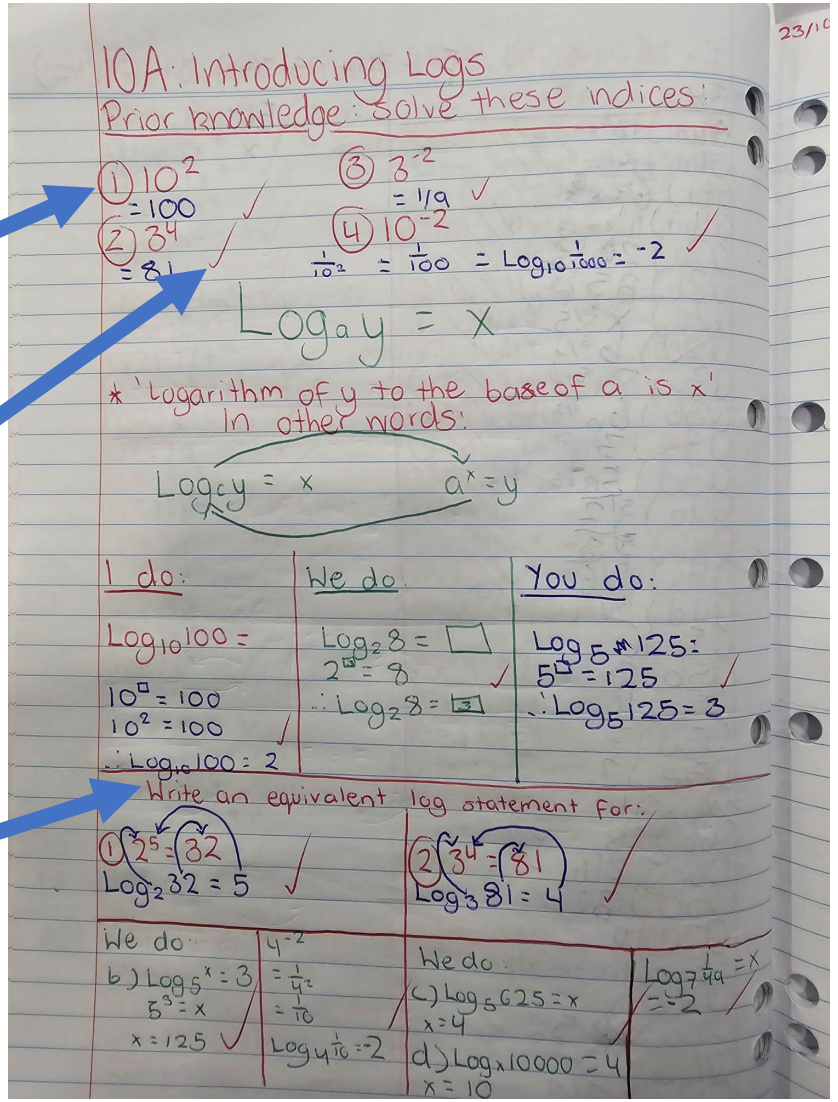
create an environment for students where they can begin to apply what they are learning.
Mastery is not an expectation; the teacher is there to provide scaffolds to support and guide learners."
(Frey and Fisher 2010)

Challenges that match the skill

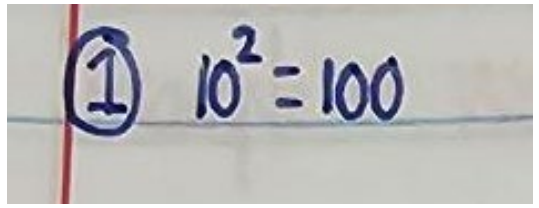
Feedback
"Give yourself a tick"
to promote achievement

Clear goal

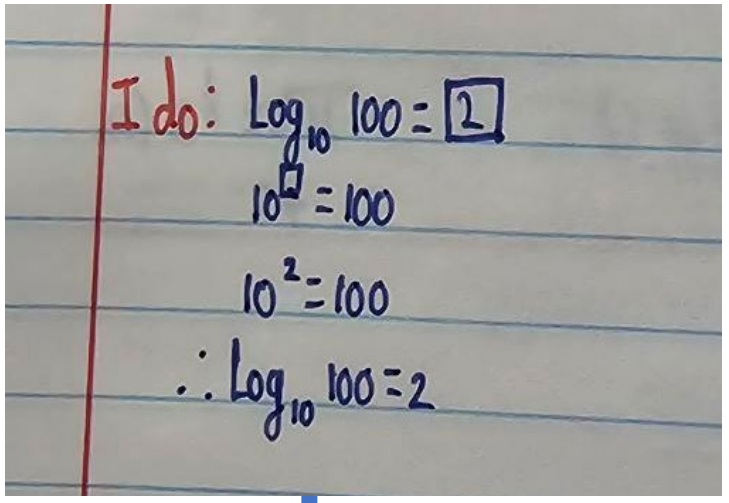
Which factors that affect flow can you identify?



Prior Knowledge

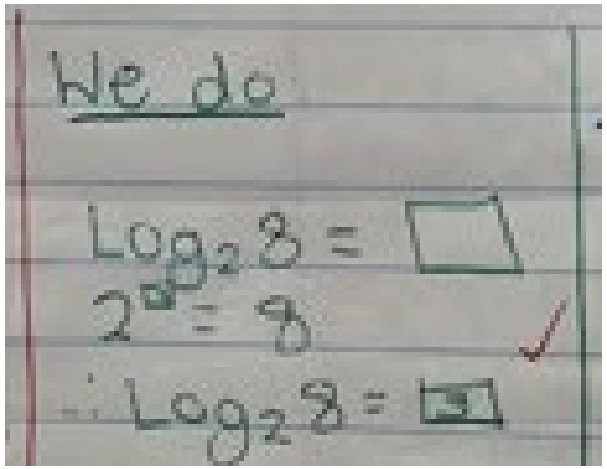


Explicit instruction



Drawing a connection with what students can control (where the challenge matches the skill) to new content.

- Reduces anxiety
- Increase concentration



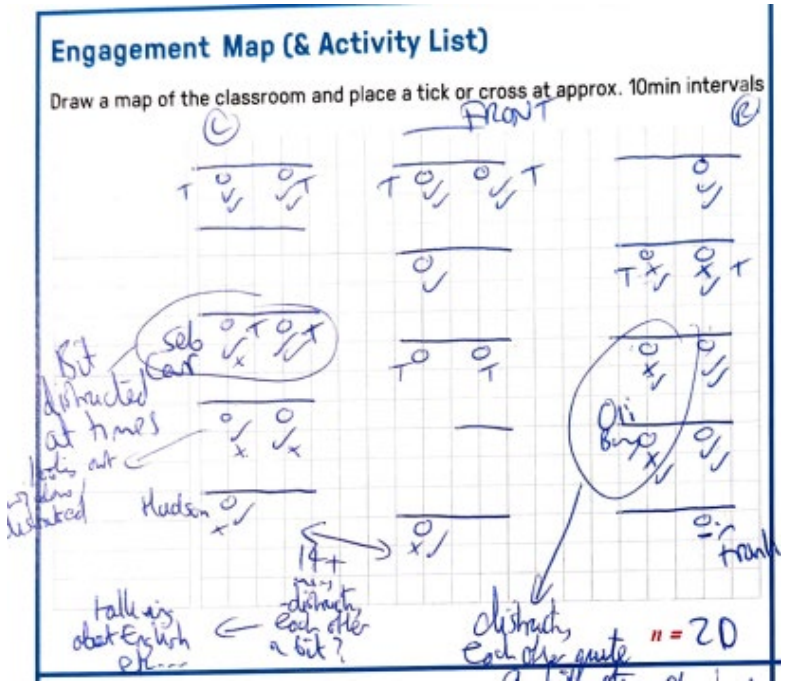
Focus – Classroom management

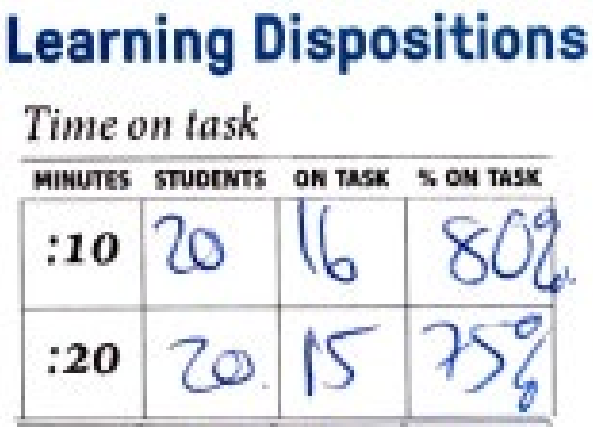
Pastor’s perch – monitoring student engagement but not distracting students.

Proximity - close approach for those who are starting to lose focus

So how do we know if students are in flow? Collect Engagement Data

Mihaly – "…Focused on what you're doing – I think that is the essential one from which all other (parts of the flow experience) come. So if I were to measure just one, I would measure that…" (Beard 2014)





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Any questions…

E23 - (Year 7 to Year 10) Cultivating Flow: Enhancing Engagement and Learning in Secondary School Mathematics

Pedagogy

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Description

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