PRIFYSGOL CYMRU
Y Drindod Dewi Sant
UNIVERSITY OF WALES
Trinity Saint David

Er...um...what was the question again?

Canolfan Addysg Athrawon De-Orllewin Cymru
The South West Wales Centre of Teacher Education


Can you spot the two main elements of this learning?

Clue!

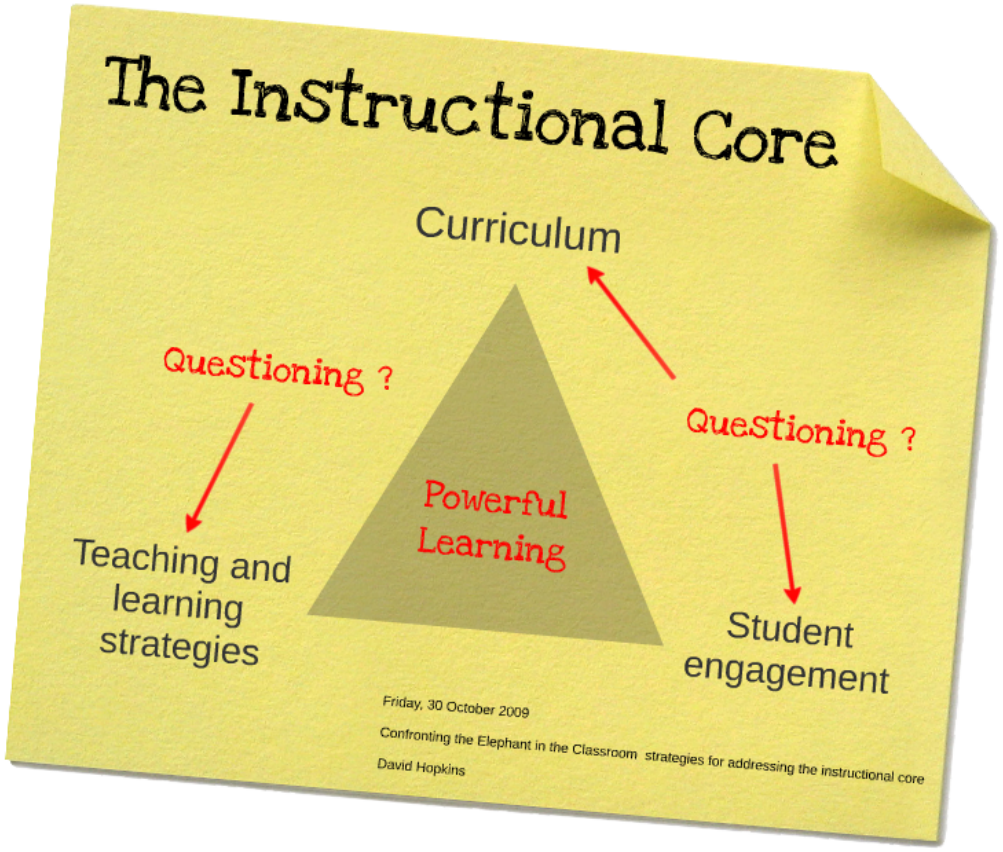




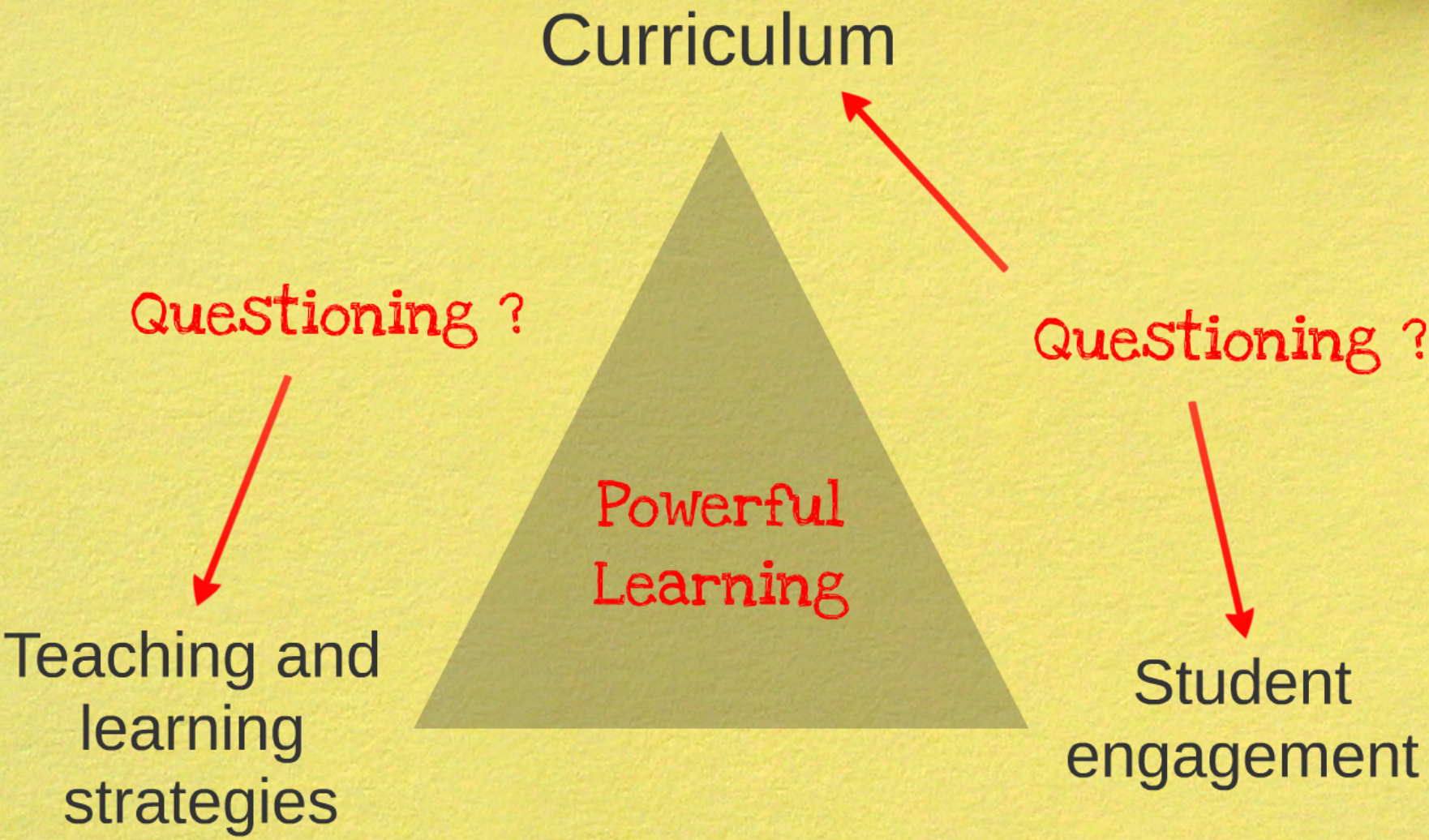
What are we learning here?



Only allowed to make nine notes!


The Instructional Core
Curriculum
Questioning ?
Questioning ?
Powerful Learning
Teaching and learning strategies
Student engagement
Friday, 30 October 2009
Confronting the Elephant in the Classroom strategies for addressing the instructional core
David Hopkins

The Instructional Core



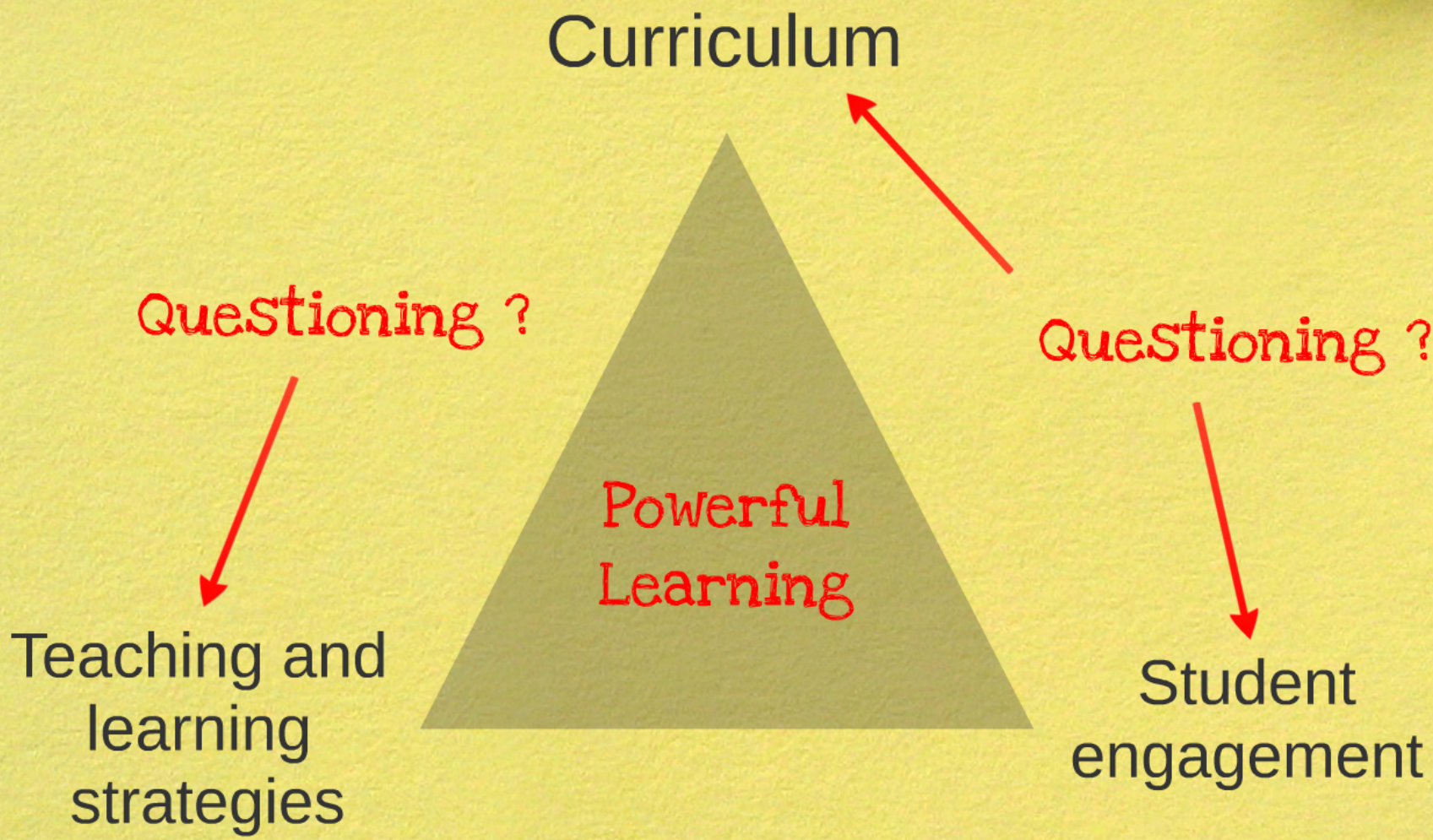
Friday, 30 October 2009

Confronting the Elephant in the Classroom strategies for addressing the instructional core

David Hopkins


Q_e_st_o_n_g
Doing
detail!
15
29

The Instructional Core



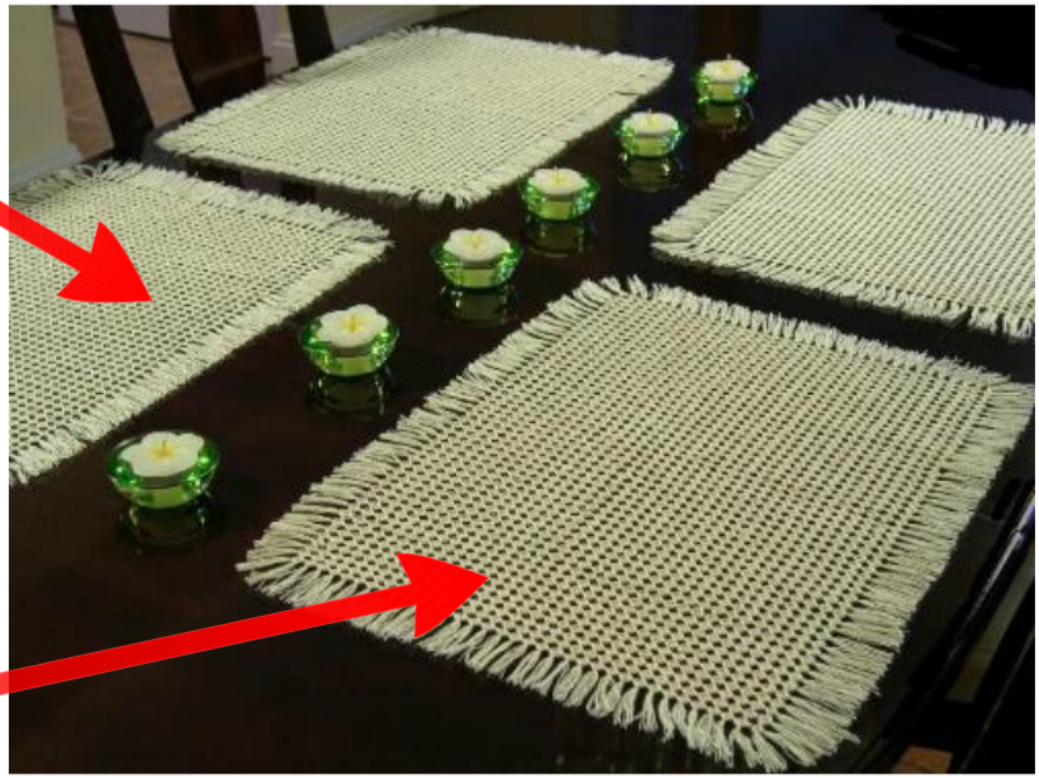
Friday, 30 October 2009

Confronting the Elephant in the Classroom strategies for addressing the instructional core

David Hopkins


Before
the
learning!

EXIT CARD





Our journey today...

Objectives

- To deepen our understanding of the importance of questioning.
- To raise our awareness of specific 'doing detail' when utilising questioning techniques.
- To broaden our range of successful questioning techniques.
- To evaluate specific questioning strategies with regards to impact.

For increased engagement

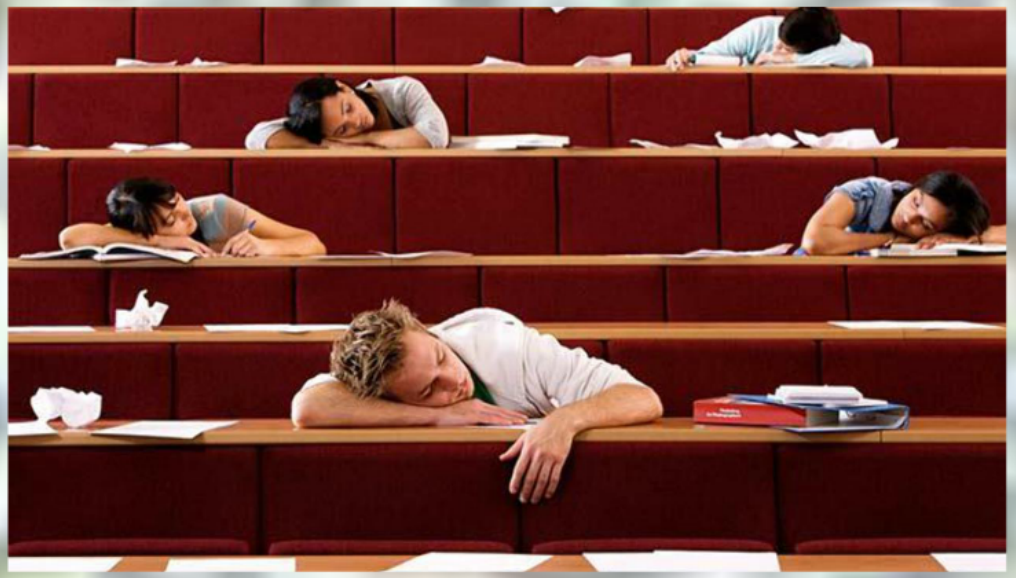
Hey...WIIFM?

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Hey...WIIFM?





Only discussing the L.O's now?

What are you looking forward to?

What don't you need?

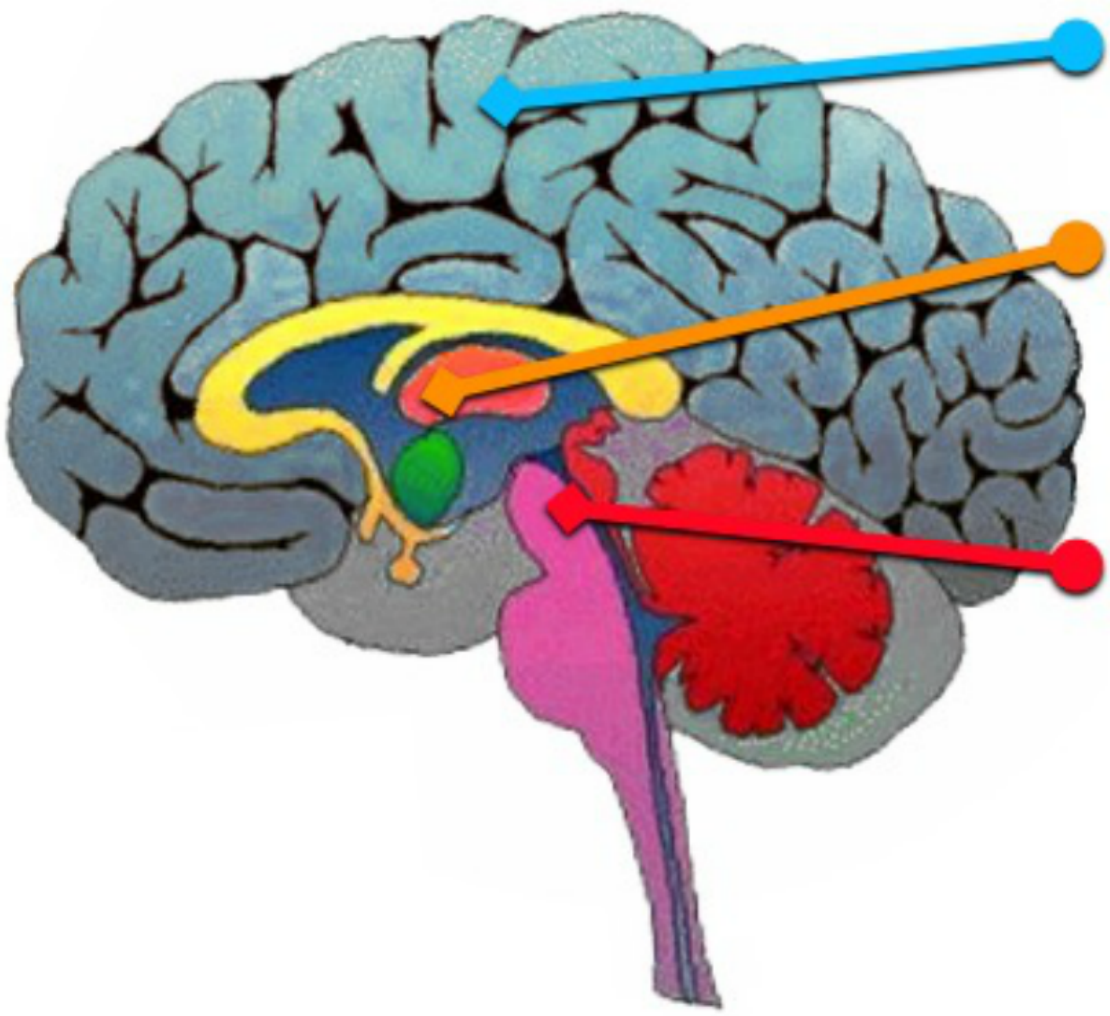
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Hey...WIIFM?

What's with the colours Coxy?



Neocortex:
Rational or Thinking Brain

Limbic Brain:
Emotional or Feeling Brain

Reptilian Brain:
Instinctual or Dinosaur Brain

Brain is wired for survival

WIIFM = "What's in it for me?"

So what's the WIIFM Tom?



(cc) photo by jimmyharris on Flickr

School Improvement - Effectiveness

Reduce class sizes by 30%

Increase teacher content knowledge from weak to strong

Formative assessment/ assessment for learning

Extra months of learning per year



4 (in 12 months small class achieves what larger class did in 16)



2



8

Dylan Wiliam (2009) Assessment for learning: why, what and how? London: Institute of Education

School Improvement - Effectiveness

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The 4 Elements of AfL

Sharing criteria with learners	Quality of questions/ quality of talk	Use and quality of feedback	Peer and self assessment
Learners know what will make their work good.	*All learners actively think up answers to good, open questions.*	*Ongoing feedback keeps learning on track.*	*Learners benefit from evaluating each other's work.*
Learners know where they are, and the next step, according to the criteria.	*Learners explain ideas to each other, reinforcing their learning and understanding.*	*Learners act on the feedback there and then. Learners take the next step.*	*Learners gradually become more independent by learning how to self-assess.*

Assertive questioning



Buzz Groups



Teacher monitors
"You ok?"
"Need a hint?"
"Do you need more time?"
"everyone got an answer?"



NO ANSWERS GIVEN!

Teacher nominates one member from each group to give group answer

Thank you
Justify - Why do you think that?
Who agrees/something different?
Teacher does not evaluate!

Teacher - Point out inconsistencies

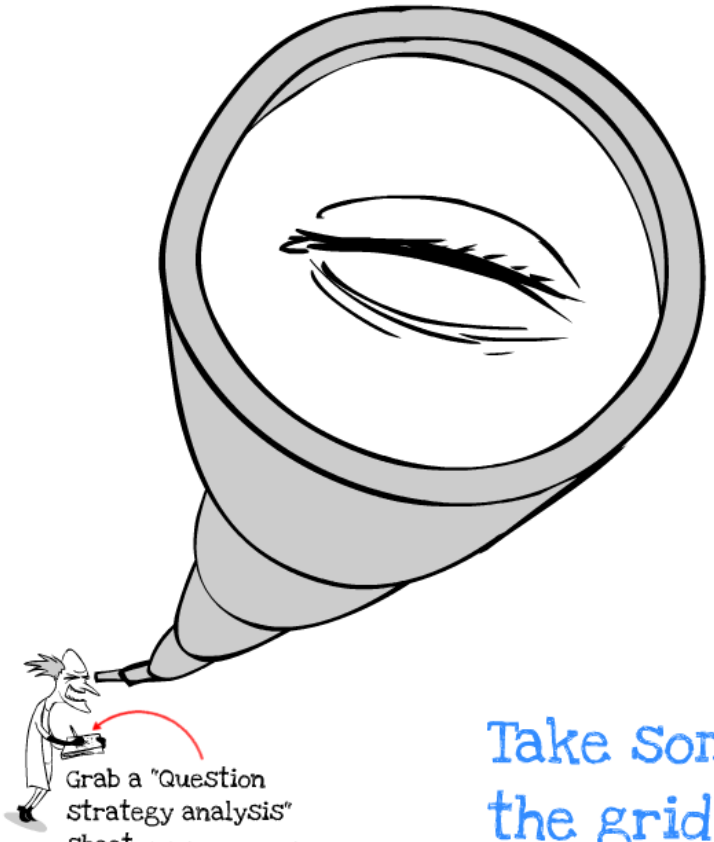
Consensus - 'class answer'

Teacher 'gives away' right answer or evaluates/ comments



Grab a "Question strategy analysis" sheet...that bit of paper on your table!

Which is the most important factor for you?



Grab a "Question strategy analysis" sheet...that bit of paper on your table!

...participation rate

...Teacher's feedback

...Student's feedback

...Thinking Time

...Student comfort

Take some time to complete the grid with a friend.

Feedback in 10 mins.

Which techniques promote a good participation rate?







Augmenta

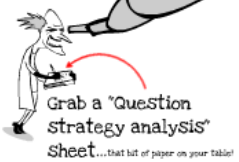
Which is the most important factor for you?



...participation rate
...Teacher's feedback
...Student's feedback
...Thinking Time
...Student comfort







Take some time to complete the grid with a friend.

Feedback in 10 mins.



...n through the doing detail of...

Feedback

Which techniques promote a good participation rate?

Basketball not Ping Pong!





P4C technique

SECRET NOTES



Individual





x 3





Does anyone have a question?

GAME

CHANGER!

What are your questions?

1. Pose



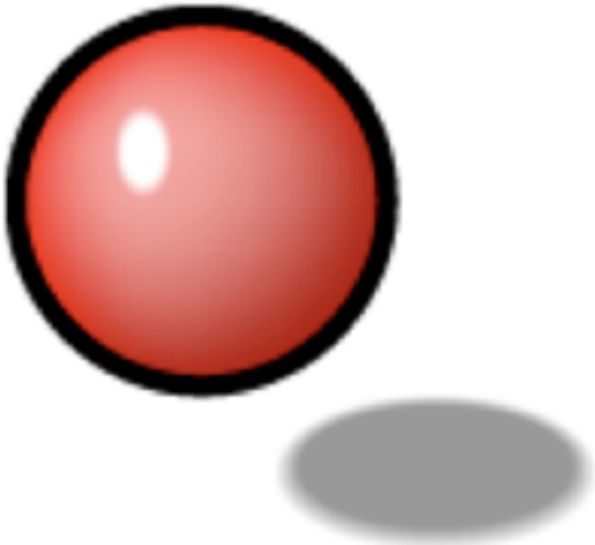
2. Pause



3. Pounce



4. Bounce





Questioning is one of your most potent tools...why?

Let's compare two teachers developing the same teaching point.

They are teaching children in DT, how to display the cakes they have made, in the dinner hall.

Role-play activity

Knowledge gained through questioning is more likely to be...?



Transferable

Questioning types

Trevor Kerry (1982)

Question Type	Example
Data recall	What is the capital of France?
Naming	What is the name of the bone in the thigh?
Observation	What colour was the litmus paper?
Control	Will you sit down John?
Pseudo-question	(Open Q but teacher expects one answer) What do you see here?
Higher-order question types	
Speculative hypothesis	What would happen if all trees were cut down?
Give reasons	Why do people in the third world chose to have so many children?
Evaluation	What evidence is there for and against the existence of an afterlife
Problem-solving	How can we drill the metal without overheating?

The talk trap

Most people talk up to 100 to 200 words per minute.



A 2 hour lecture could contain up to 24,000 words.

Effect on short/ long term memory?

5 min concentration span (Undergraduate 15-20mins).

A lecture is an event where information passes from the notes of the lecturer into the notes of the student, without passing through the brains of either. (Petty, 2009)

What are the benefits of the questioning approach?

Actively involved

Focus on understanding not just remembering

Stimulates curiosity

Lesson moved forward at learner's pace

Learner's demonstrated success

More interesting

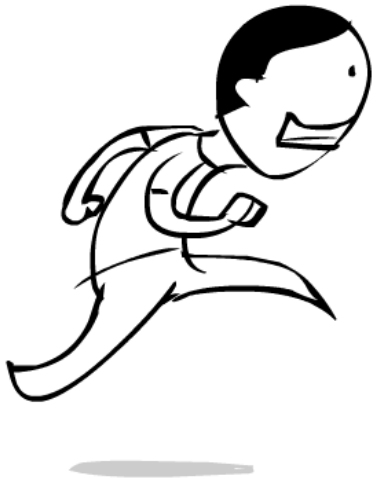
Learners had to think for themselves

Learners had assumptions and prior knowledge challenged and corrected (Unlearning is vital)

The logic of the subject is exposed and they are encouraged to use it

Teacher and learner gaining instant feedback

Run through the doing detail of...



Questioning techniques

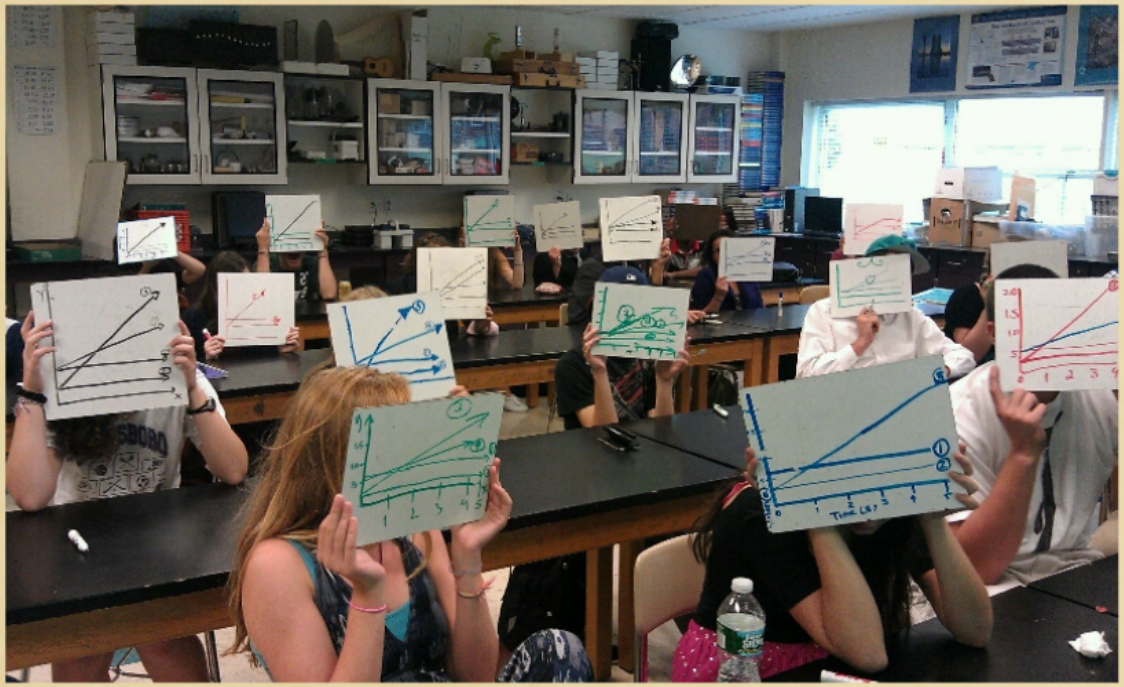
Snowballing



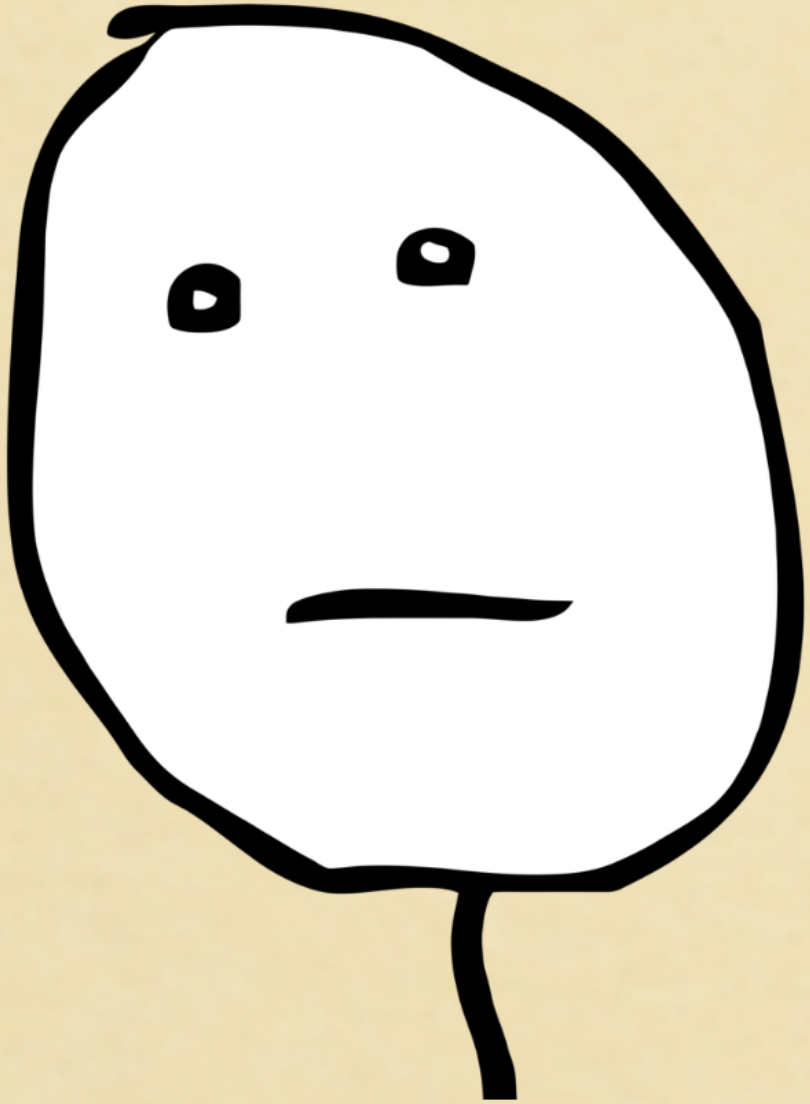


'Secret Squirrel'





Poker Face



‘Might’

When questioning, insert the word ‘might’ to give students greater opportunity to think and explore possible answers.

e.g.

What is meaning of democracy?

What might the meaning of democracy be?

The first infers a single answer known by the teacher whereas the second is inherently more open.



What might the Great Depression look like today?

wait-time

(0.9 secs)



Wait time allows students time to think and therefore to produce answers. Also, not everyone in the class thinks at the same speed or in the same way – waiting allows students to build their thoughts and explore what has been asked.

2 types of wait time –

Teacher speaks and then waits before taking student responses.

Student response ends and then teacher waits before responding. This gives the student space to elaborate or continue – or for another student to respond.



Don't weaken the question

X and Y

Ask students why X is an example of Y

e.g.

Why is an apple an example of a fruit?

Why is a fox an example of a mammal?

Questioning in this way avoids factual recall and asks for the underlying reasoning to be made explicit.



Certainty Line







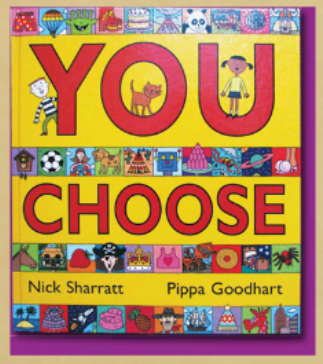
Butterfly Pairs

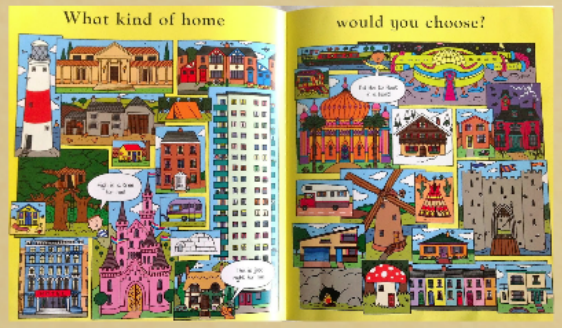


Perfect partners



Eye Contact
Body language
Take turns
Listen
Time



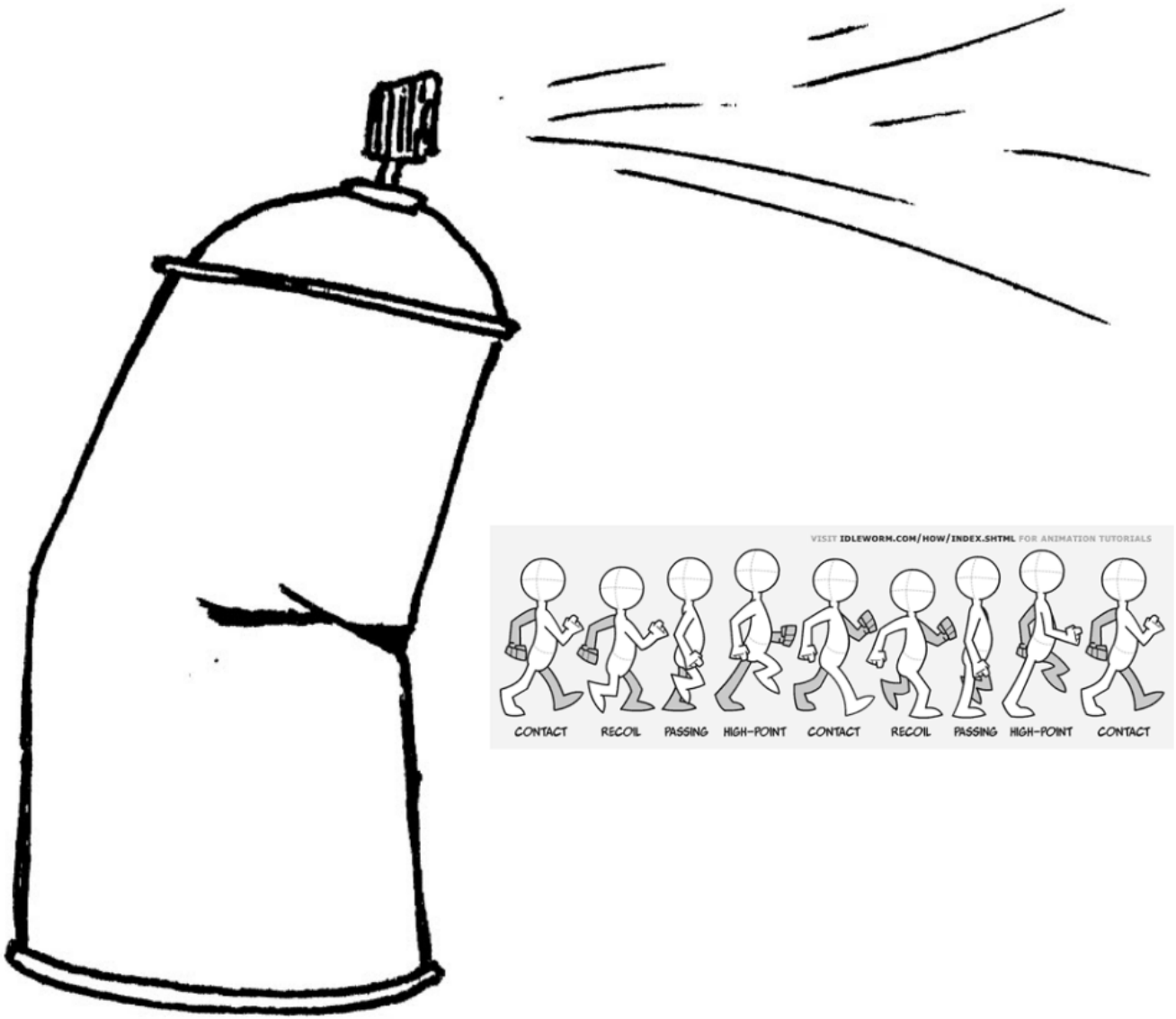


Examples of Questions

Do fish cry?

If flowers could talk, what would they say?

Why is rain wet?


VISIT IDLEWORM.COM/HOW/INDEX.SHTML FOR ANIMATION TUTORIALS
CONTACT
RECOIL
PASSING
HIGH-POINT
CONTACT
RECOIL
PASSING
HIGH-POINT
CONTACT



Think of a single teaching point...teach it in 1 min using questions only!


RUN FOR
YOUR LIVES!



ATTACK OF THE 50-FOOT MOUSE

NOW IN PREVISION™

Common mistakes made by inexperienced teachers.



Vocabulary too complex.

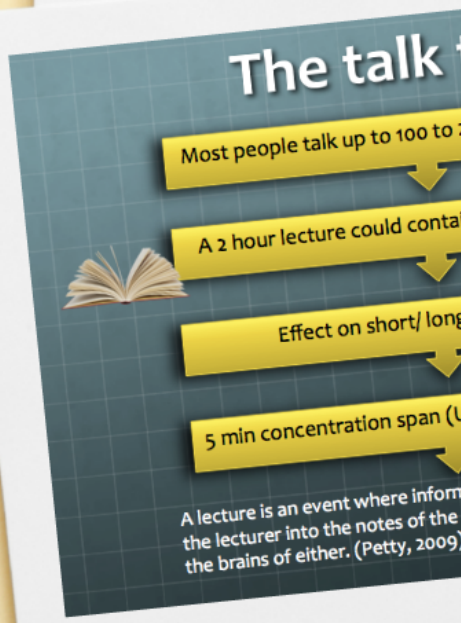
Not enough ‘wait time’.

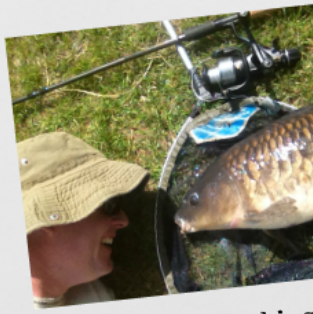
Not enough reinforcement (praise).

Often unable to prompt a student into producing a useful response.

Trevor Kerry (1982)

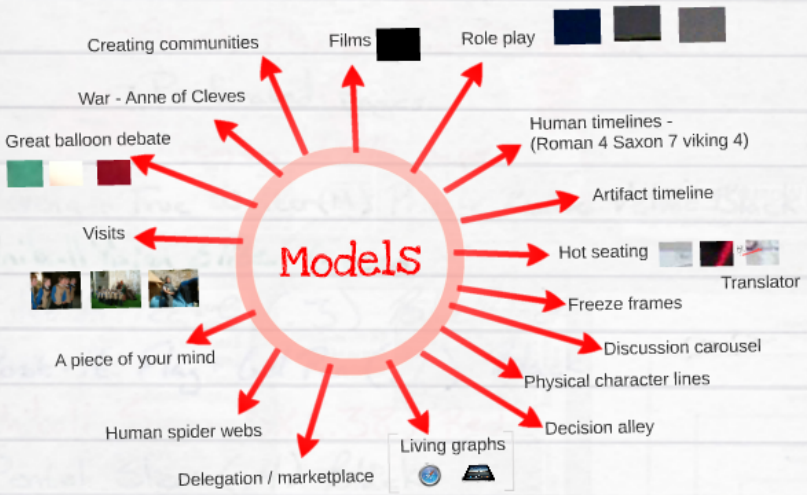






Think of a single teaching
it in 1 min using quest

Active learning strategies





- Intellectual processing of info
- Abstract reasoning
- Search for novelty

- Long term memory

Urine!

- Rituals
- Fight or flight
- Territory
- Mating

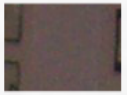
Models

Creating communities

Films

Role play





War - Anne of Cleves

Great balloon debate





Human timelines -
(Roman 4 Saxon 7 viking 4)

Artifact timeline

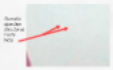
Visits





Hot seating





Translator

Freeze frames

Discussion carousel

Physical character lines

Decision alley

Living graphs




Delegation / marketplace

Human spider webs

A piece of your mind

Artifact timeline

Hot seating





Socratic question structures really help



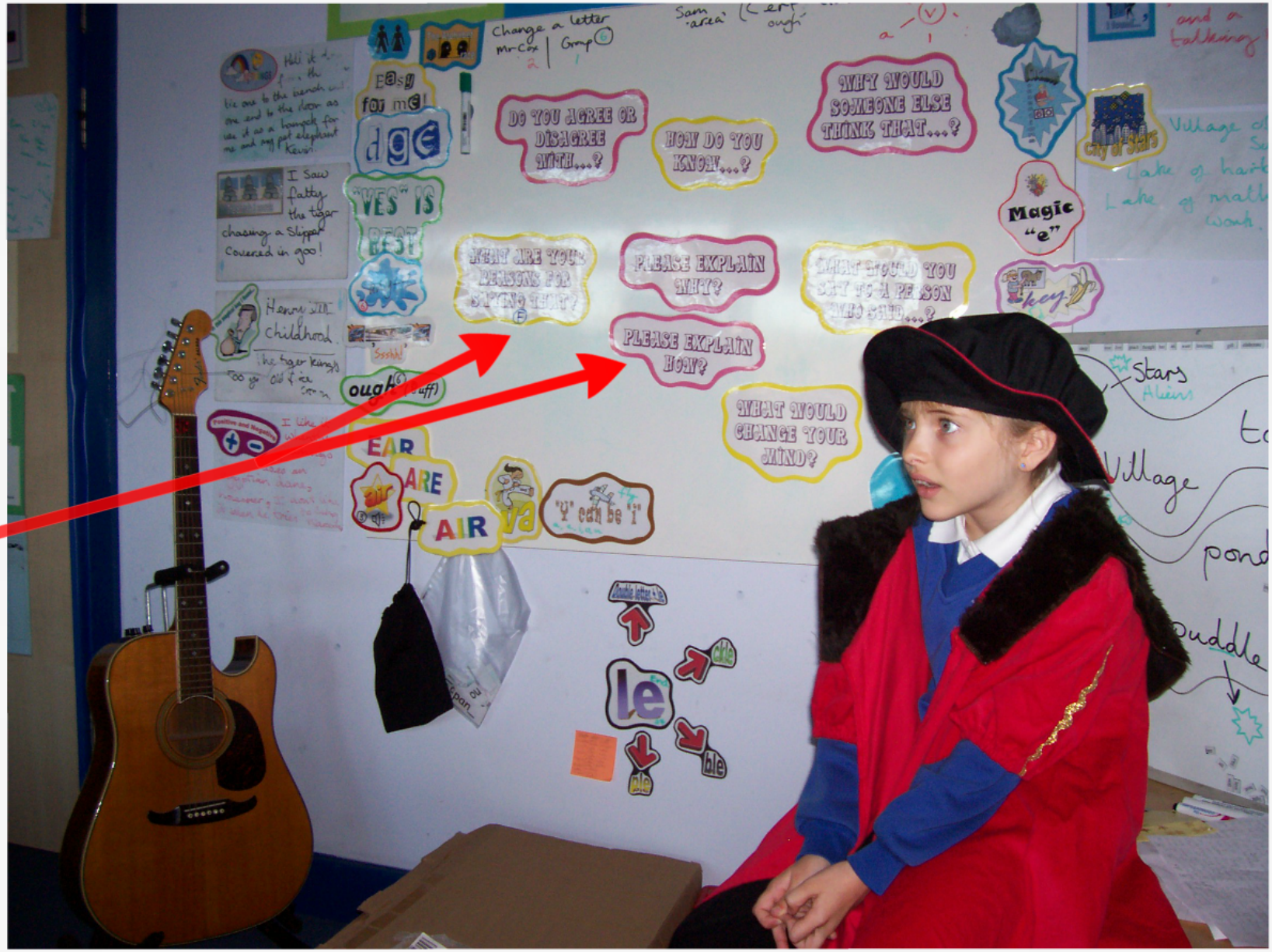
Translat

Freeze frames

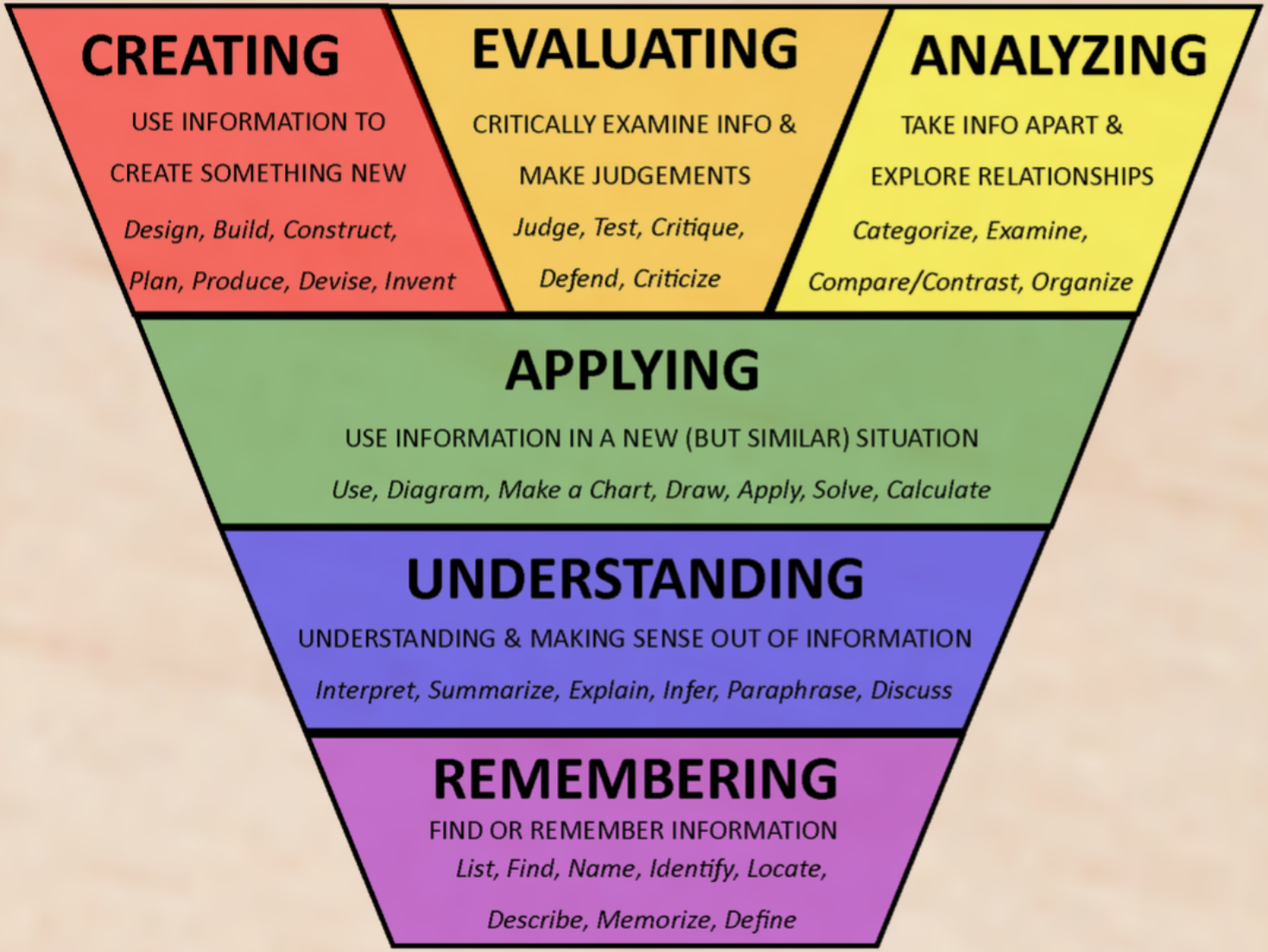

bed
Verb
Adverb
Easy for me!
dge
"YES" IS BEST
ough (uff)
EAR
ARE
AIR
Magic "e"
le
Do you agree or disagree with...?
How do you know...?
Why would someone else think that...?
What are your reasons for saying that?
Please explain why?
Please explain how?
What would you say to a person who said...?
What would change your mind?
City
Lake
Pigs
ARBITER


Magic "e"
City
Stars
Aliens
Village
moons
Lake
pigs

Socratic question structures really help




What happened after...?
Remembering
Where else would you see...?
Applying
Understanding
What would be an example of...?
Understanding
How many ways can you...?
THINKING DICE
Higher Order Thinking made simple



Bloom's revised Taxonomy



1 Highest

2 3

4 5 6

7 8

9 Lowest

what are your nine top strategies?

References and further reading

Groisser, P. (1964) How to use the fine art of questioning, Englewood cliffs, NJ: Teachers Practical Press.

Kerry, T. (1982) Effective questioning, London: Macmillan.

Marzano, R.J. et al. (2001) Classroom instruction that works: Research-Based strategies for Increasing Student Achievement, Alexandria, VA: ASCD.

Petty, G. (2006) Evidence Based Teaching, Cheltenham: Nelson Thornes.

Contact details









Step four?

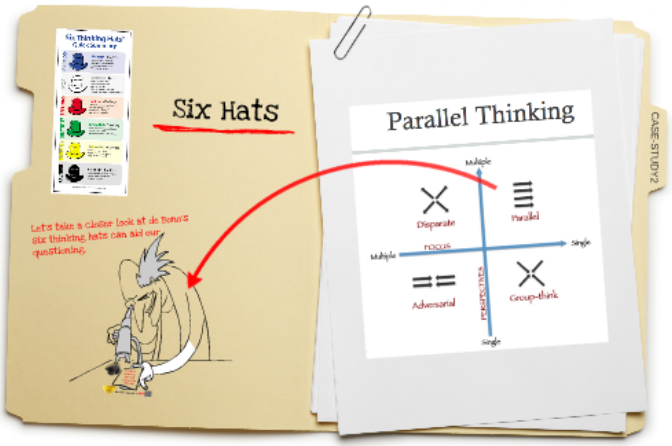
Augmented Rea























Research on the Solution room for 4 key slides

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