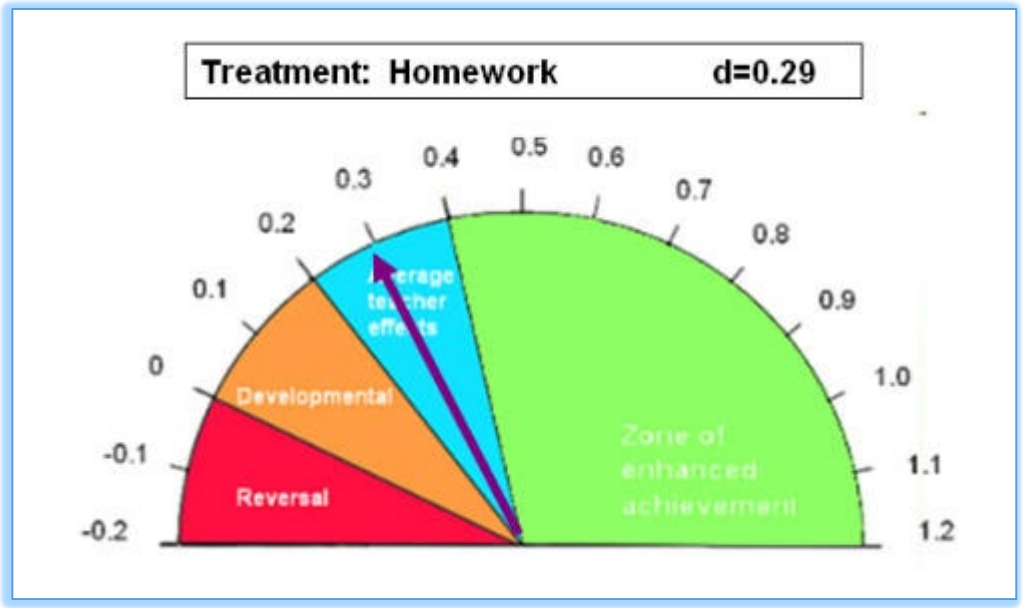
Retrieval practice

HOMEWORK ☹


Treatment: Homework d=0.29
0.4
0.5
0.6
0.3
0.7
0.2
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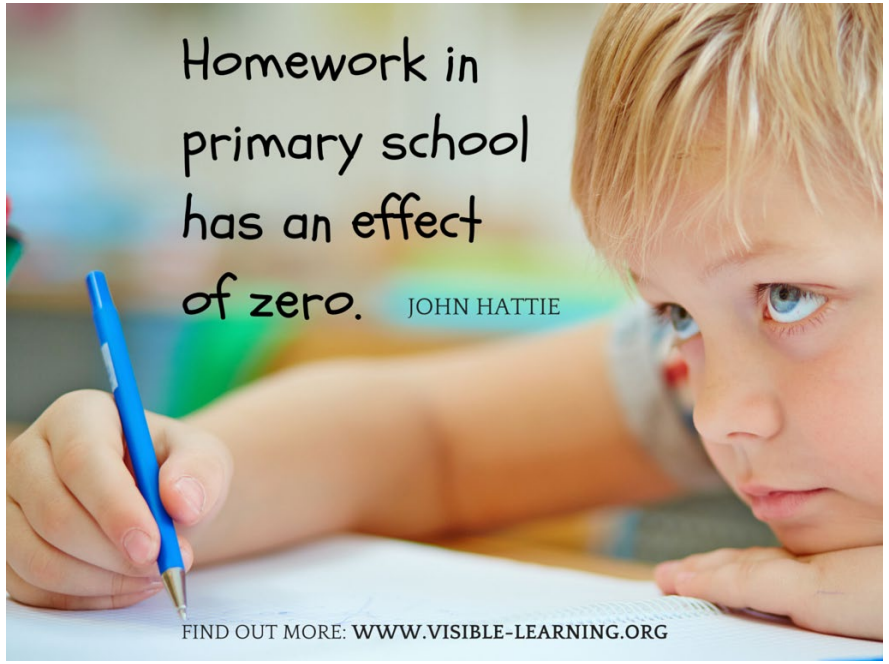
0
1.0
-0.1
1.1
-0.2
1.2
Developmental
Reversal
Zone of enhanced achievement


Homework in primary school has an effect of zero.
JOHN HATTIE
FIND OUT MORE: WWW.VISIBLE-LEARNING.ORG

HOMEWORK ☹

If homework is assigned, it must be purposeful, transparent, and tied to learning experiences. Students shouldn't have to guess the reason for the homework, or worse, mindlessly complete assignments for the mere reason because they were told to do so.

Starr Sackstein & Connie Hamilton • Hacking Homework

TEACHING & LEARNING TOOLKIT TOPIC	COST	EVIDENCE	IMPACT
Meta-cognition and self-regulation	£ £ £ £ £	🔒🔒🔒🔒🔓	+8 months
Feedback	£ £ £ £ £	🔒🔒🔒🔓🔓	+8 months
Peer tutoring	£ £ £ £ £	🔒🔒🔒🔒🔓	+6 months
Early years intervention	£ £ £ £ £	🔒🔒🔒🔒🔓	+6 months
Oral language interventions	£ £ £ £ £	🔒🔒🔒🔒🔓	+5 months
Homework (Secondary)	£ £ £ £ £	🔒🔒🔒🔓🔓	+5 months

Professor Dylan Wiliam, deputy director of the Institute of Education, says: "Getting pupils to do homework is an incredibly expensive and generally unproductive public relations exercise. Schools push homework because they think parents like it, but most schools don't plan homework well enough for it to be worth doing. This is not to say that homework cannot be good, just that most of it currently isn't."

- We don’t want children wasting their time doing tasks that don’t impact on learning
- We don’t want parents having to constantly nag their children to complete things they don’t understand
- We don’t want to stress out parents if they don’t know how to help their child (or with the nagging!)
- We don’t want parents doing the homework for their children!

- ✓ We want homework to perfectly match the work they are doing in school so that it supports and reinforces each other
- ✓ We want homework to support children becoming independent learners, using cognitive strategies that suit them as individuals
- ✓ We want homework to support our work on metacognition
- ✓ We want homework to be consistent in application so that anxieties about what to do and doing it right are reduced
- ✓ We want homework to be flexible so that pupils can actively pursue other interests without homework getting in the way or being a burden. If you have scouts one night, or gymnastics practice – we want you to concentrate on this as it’s important. Homework can be fitted in around your schedules

Metacognition

Meta =

beyond

Cognition =

the mental process involved in gaining knowledge and understanding

Learning to Learn

Retrieval time!

Cognition =

the mental process involved in gaining knowledge and understanding

Memory not memories – teaching for long term learning

Retrieval process

Unfortunately this effect is also known as the ‘testing effect’ which puts some teachers off and confuses others – myself included until recently – so that we see this as an assessment tool. **It is not an assessment tool, it is a learning tool.** I fear my previous blogs on knowledge organisers might have reinforced that misunderstanding. You might get some assessment data as a by product from *some* retrieval practice but that is not its prime purpose. Its prime purpose is to make memories stronger.

Claire Sealy

The struggle of trying to retrieve is what makes the memory stronger

One way of helping deal emotionally with the stress of not knowing something is by calling retrieval a game of hide and seek. That pesky knowledge is trying to hide from you, but you are going to try really hard to track it down.

Retrieval time!

Cognition =

the mental process involved in gaining knowledge and understanding

The retrieval effect is stronger if we allow a bit of forgetting to happen before getting children to retrieve. Using our hide and seek analogy, if you only count to 5 before you go and ‘seek’, your friends will be pretty easy to find but your ‘seeking skills’ won’t have had much of a work out. Count to 50 and your friends will be well hidden and you will have to work hard to find them. It’s the same with memory. Our memories get stronger once retrieved if we have had time to forget them – bizarre as that sounds.

Spaced learning (aka distributed practice)

- 1 day later
- 1 week later
- 1 month later
- 3 months later
- 9 months later

Knowledge Organisers

- the information you need to get INTO the long term memory

- Each child will get a knowledge organiser for every subject. The knowledge organiser contains in the region of 30 key pieces of information that are the basic building blocks of knowledge.
- Pupils learn this information for homework using whatever cognitive strategy they want to

Retrieval Practice

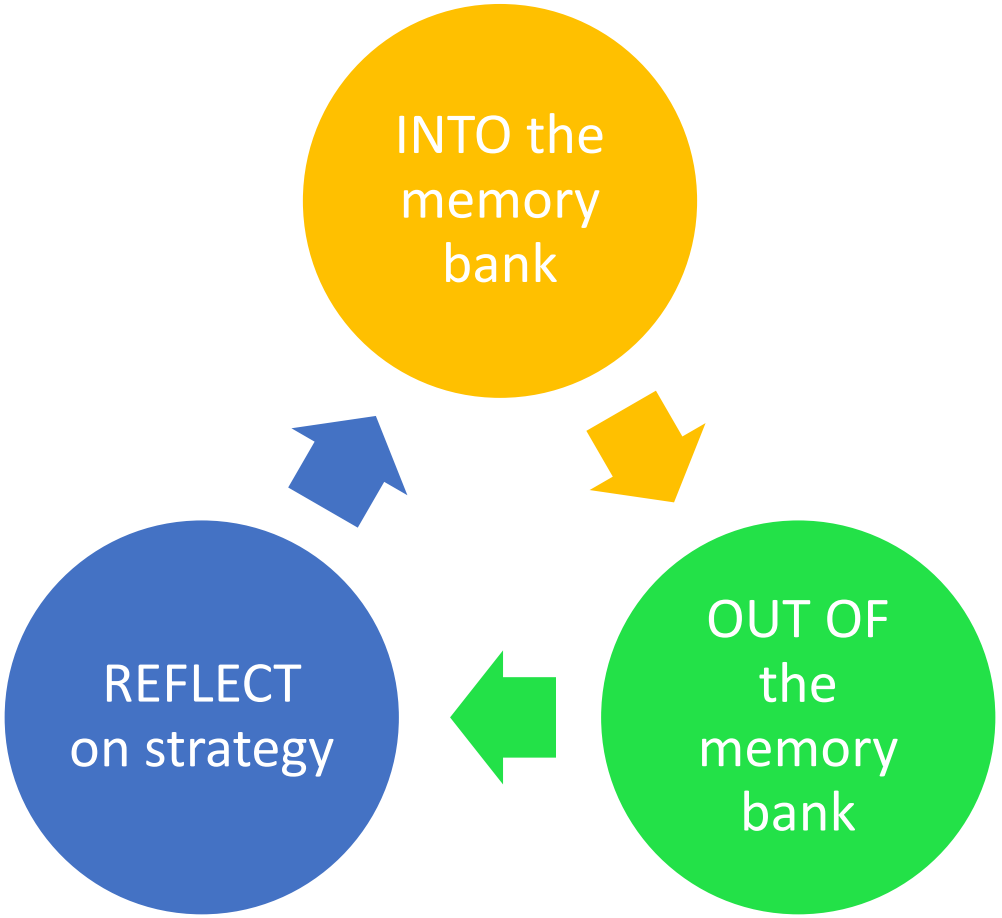
- checking how much information you can get OUT OF the long term memory

Retrieval means…

- Testing
- Direct verbal questions
- Self questioning
- Writing notes from memory
- Using flash cards
- Writing essays
- Writing mind maps from memory

- All information is **retrieved** rather than passively heard or re-read

Home learning will be a combination of both



Retrieval time!

Cognition =

the mental process involved in gaining knowledge and understanding

Metacognition

=

Learning to Learn

Cognitive Challenge

10 x 1 =

9

1

11

10

9 x 7=

63

70

56

36

12 x 7=

91

84

77

48

2 x 3=

6

5

8

1

9 x 12=

120

108

96

801

7 x 5=

40

30

53

35

$7 \times 7 =$

$6 \times 8 =$

$6 \times 7 =$

$11 \times 4 =$

$8 \times 8 =$

$8 \times 12 =$

$7 \times 8 =$

10x1	6x8
9x7	6x7
12x7	11x4
2x3	8x8
9x12	8x12
7x5	7x8

10x1 = repetition

9x7

12x7

2x3 = repetition

9x12

7x5

6x8

6x7

11x4

8x8

8x12

7x8

10x1 = repetition

9x7

12x7

2x3 = repetition

9x12

7x5

6x8

6x7

11x4 = easy to remember visually (until 11x11 & 12x11)

8x8

8x12

7x8

10x1 = repetition

9x7

12x7

2x3 = repetition

9x12

7x5

6x8

6x7

11x4 = easy to remember visually (until 11x11 & 12x11)

8x8 = Rhyme

8x12

7x8

10x1 = repetition

9x7

12x7

2x3 = repetition

9x12

7x5

6x8

6x7

11x4 = easy to remember visually (until 11x11 & 12x11)

8x8 = Rhyme

8x12

7x8 = visual 5-6-7-8

10x1 = repetition

9x7 = always 1 lower (until 10x9)

12x7

2x3 = repetition

9x12

7x5

6x8

6x7

11x4 = easy to remember visually (until 11x11 & 12x11)

8x8 = Rhyme

8x12

7x8 = visual 5-6-7-8

10x1 = repetition

9x7 = always 1 lower (until 10x9)

12x7

2x3 = repetition

9x12

7x5

6x8

6x7

11x4 = easy to remember visually (until 11x11 & 12x11)

8x8 = Rhyme

8x12 = 8x10 +16

7x8 = visual 5-6-7-8

10x1 = repetition

9x7 = always 1 lower (until 10x9)

12x7

2x3 = repetition

9x12

7x5

6x8 = grrrrr!!!

6x7

11x4 = easy to remember visually (until 11x11 & 12x11)

8x8 = Rhyme

8x12 = 8x10 +16

7x8 = visual 5-6-7-8

10x1 = repetition

9x7 = always 1 lower (until 10x9)

12x7

2x3 = repetition

9x12

7x5

6x8 = grrrrr!!!

6x7 = grrr x2= visual

11x4 = easy to remember visually (until 11x11 & 12x11)

8x8 = Rhyme

8x12 = 8x10 +16

7x8 = visual 5-6-7-8

Retrieval time!

Cognition =

the mental process involved in gaining knowledge and understanding

Let’s go shopping !

What shops?

- Tesco
- John Lewis
- Salamander
- Bertie’s Sweet Shop

something such as a very short poem or a special word used to help a person remember something:

•The musical notes on the lines go EGBDF - use the mnemonic "Every Good Boy Deserves Fun"

•The colours of a rainbow—use the mnemonic “Richard Of York Gave Battle In Vain”

•Points of a compass—use the mnemonic “Naughty Elephants Squirt Water”

•Difficult spellings – I Sat On Swanage Cliffs Eating Lovely Egg Sandwiches = isosceles

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Find a mnemonic for the shops you need to visit

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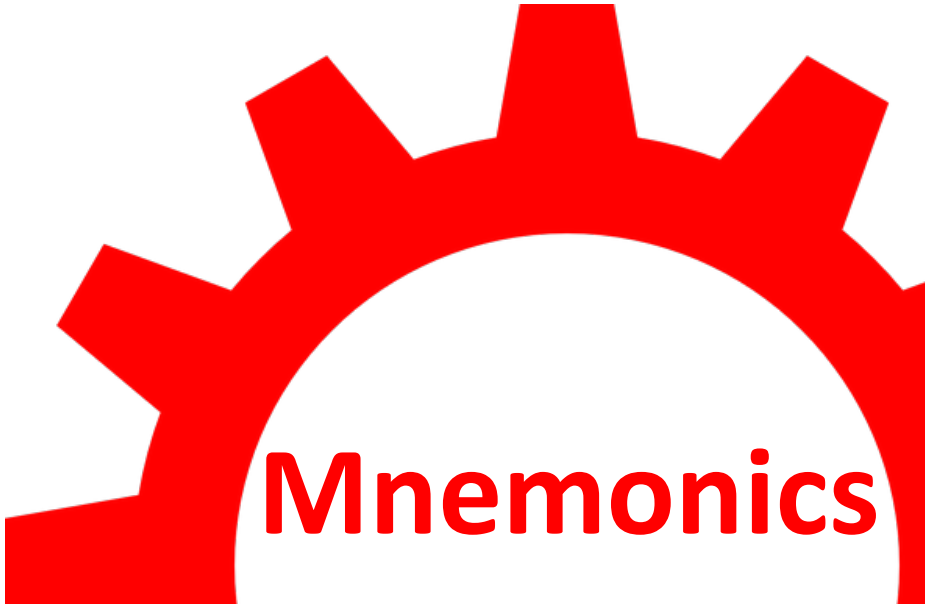

What shall we buy at TESCO?

- Carrots
- Honey
- Porridge oats
- Orange juice
- Tea bags
- crisps

Peg Words

a memory aid that involves linking words with numbers

- one - gun
- two - shoe
- three - tree
- four - door
- five - hive
- six - sticks

If you have a list of things to memorize, like a shopping list, you can associate each item of the list with a number rhyme image. So if your shopping list is: carrots, milk, bread, eggs, rice, etc., make associations like this:

- One is "gun" -- imagine a gun shooting a pile of carrots, the first item on your shopping list.
- Two is "shoe" -- imagine cleaning your muddy shoe with a bottle of milk.
- Three is "tree" -- imagine bread growing on a tree.
- Four is "door" -- imagine throwing eggs at a door.
- Etc.

Once you've associated each item in your shopping list with a number peg, you'll be able to mentally walk through the numbers, recall the rhymes ("what was the gun shooting?"), and recall the item ("carrots")

Use peg words to remember your shopping list

What shall we buy at **John Lewis**?

- A television
- Shoes
- Duvet cover
- Sonos Soundbar
- New hat

LOCI

Linking visual items to a story.

Memory experts sometimes refer to the Method of Loci as the 'Memory Palace.'

Instead of taking a mental walk through a specific route, they visualize items to be memorized in different imaginary rooms in their palace

•Let’s suppose that you want to memorize the following list:

•o Monkey o Computer o Apples o Soccer o Bike o Steak o Mobile phone

•You could use the method like this: I wake up in my bedroom and the first thing I see as I open my eyes is a monkey that stares at me. As I move to the bathroom I see a post-it paper on the mirror writing “Your computer is broken”. Damn this monkey broke it. I make my way to the second bedroom and on the desk I see a basket full of rotten apples and they smell terrible (sensual data increase memory capacity).

•

•I throw them out of the balcony. As I move to the living room, the TV is on playing the Champions league soccer final and I watch for a while. As I move to the kitchen I take the small bike bag from the table and I move to the refrigerator to take the steak I cooked the previous day. I walk to the front door and as I close it behind me I hear the mobile phone ringing from the inside (creates an annoying feeling because I forgot to take the mobile phone with me – feelings also increase memory capacity).

•

•This is a very simple example of the method of loci. As you can imagine, you can memorize a lot more things by creating more stop points. For instance, you can think every piece of furniture of the house as a new point. It is not necessary to change rooms to remember the next item.
You can memorize multiple objects in the same room by simply associating them with different locations in the same room. In my example, I placed the bike bag and the steak in the same room but at different locations; the bag was on the table while the steak was in the fridge

.

Use LOCI to remember your John Lewis list

What shall we buy at **Salamander**?

- Frying pan
- Fork
- Apron
- Spoon
- Butter dish

Chanting is a type of repetition practice

Chant the words, preferably in a rhythmic manner and repeat

Use chanting to remember the salamander list

What shall we buy at **Bertie's sweet shop**?

- You can have all you can eat!!!!

- I went to the shop and bought a lolly
- I went to the shop and bought….

Association

Association is a technique whereby you link hard to remember information to relevant or logical things

If memory works by association, we actively work to create an association between two bits of information. For example, for the plane that we need to catch at 2 P.M., we can imagine the plane in our mind, and notice that it has 2 wings. Two wings, 2 P.M. There's an association. We are now ten times more likely to remember the take-off time long after it has faded from our short-term memory.

Association

How many can you remember?

So …how good at shopping are you?

Retrieval time!

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