

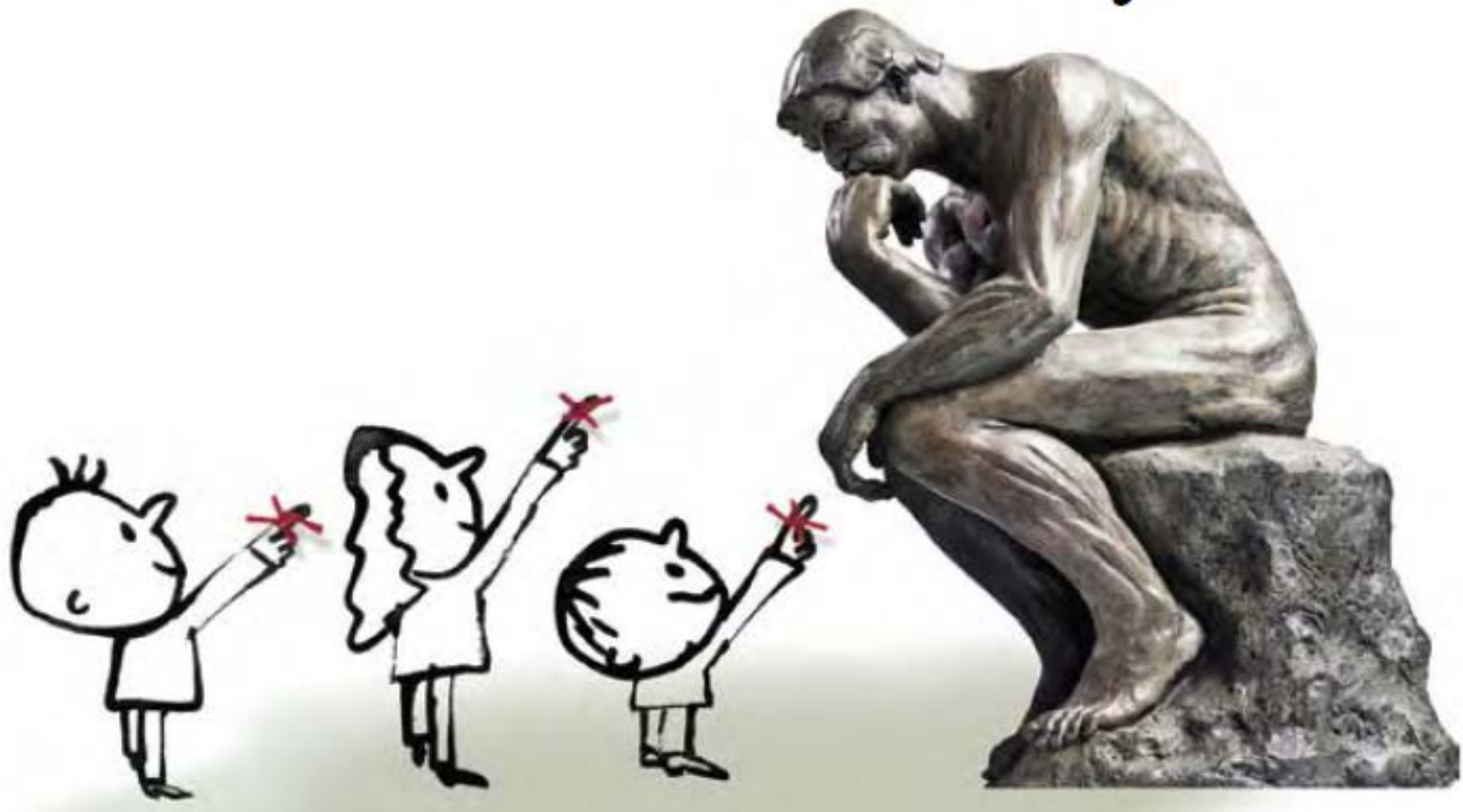
Memory and thought: *why we can't have one without the other*



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Language World 2015

ASK THE COGNITIVE SCIENTIST

What Will Improve a Student's Memory?





Many popular teaching practices are ineffective, warns new Sutton Trust report

Category: Press releases Author: Sutton Trust



What makes great teaching?

Review of the underpinning research

Categories: Schools

Author: Robert Coe - Cesare Aloisi -Steve Higgins and Lee Elliot Major

Posted on: October 31, 2014

Summary

This report reviews over 200 pieces of research to identify the elements of teaching with the strongest evidence of improving attainment. It finds some common practices can be harmful to learning and have no grounding in research. Specific practices which are supported by good evidence of their effectiveness are also examined and six key factors that contribute to great teaching are identified. The report also analyses different methods of evaluating teaching including: using 'value-added' results from student test scores; observing classroom teaching; and getting students to rate the quality of their teaching.

The Telegraph

What really makes great teaching?

Teaching is a long game; the really effective kind is already in place long before any particular lesson gets under way, says Kevin Stannard of the Girls' Day School Trust



Effective teaching comes down to: the teacher's content knowledge and the quality of instruction Photo: Alamy

Education study finds in favour of traditional teaching styles

Report from Sutton Trust and Durham University says way that pupils learn 'remains a mysterious subject'

● [What makes great teaching? - expert views](#)



📷 The latest study on teaching methods is likely to set off further debate. Photograph: David Davies/PA

No empirical support for...

- *Using praise lavishly*
- *Allowing learners to discover key ideas for themselves*
- *Grouping learners by ability*
- *Addressing issues of confidence and low aspirations before you try to teach content*
- *Presenting information to learners in their preferred learning style*
- *Encouraging re-reading and highlighting to memorise key ideas*
- *Ensuring learners are always active, rather than listening passively, if you want them to remember*

Ofsted: *Observing teaching and learning*

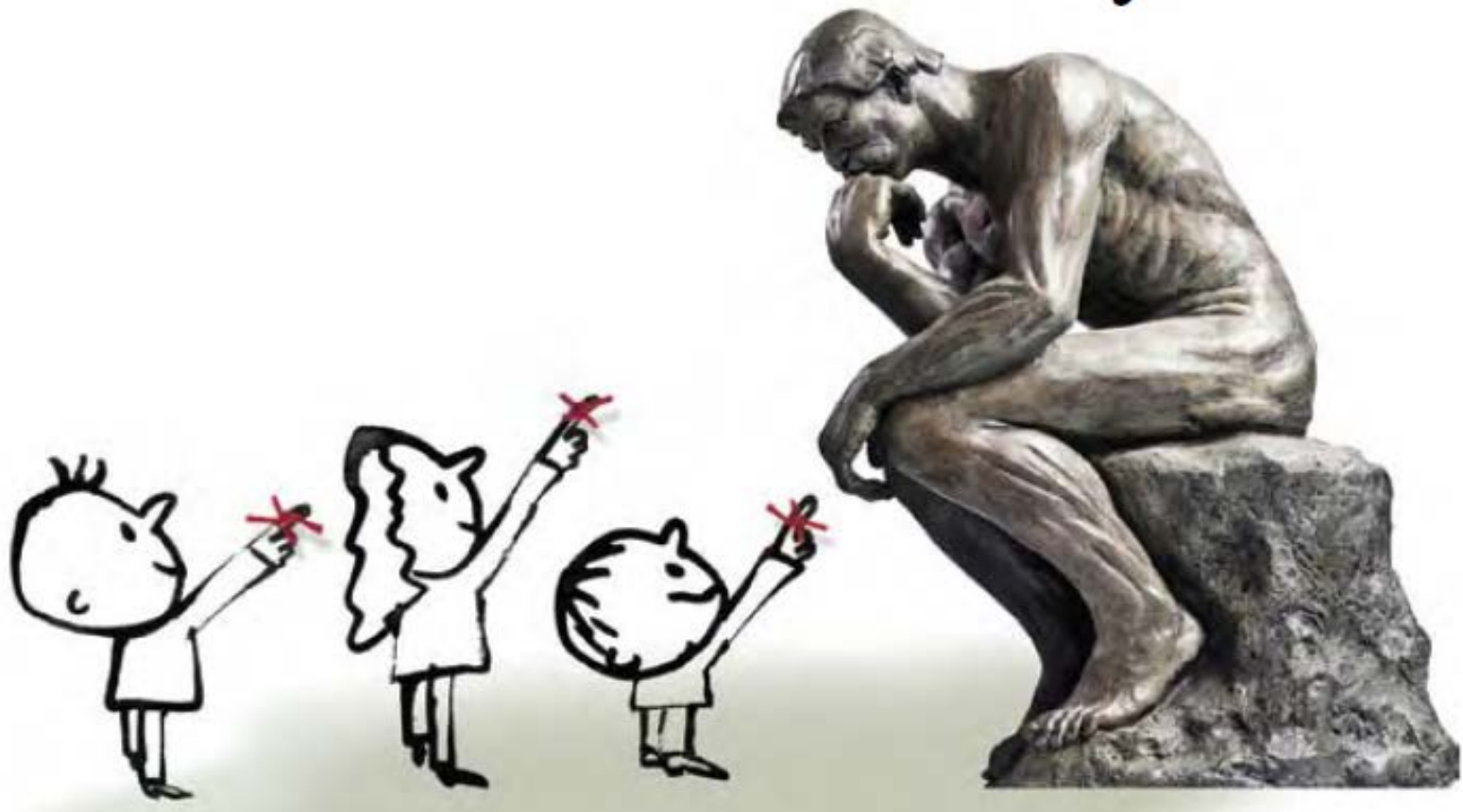
Ofsted does not favour any particular teaching style and inspectors must not give the impression that it does....they **should not criticise teacher talk for being overlong** or bemoan a lack of opportunity for different activities in lessons unless there is unequivocal evidence that this is slowing learning over time. **It is unrealistic, too, to expect that all work in all lessons will be matched to the specific needs of each individual pupil.**

Inspectors should not expect to see pupils working on their own or in groups for periods of time in all lessons. ...**Pupils may rightly be expected to sit and listen to teachers, which of itself is an 'active' method through which knowledge and understanding can be acquired effectively.** Inspectors should not criticise **'passivity' as a matter of course** ...and certainly not unless it is evidently stopping pupils from learning new knowledge or gaining skills and understanding.

When observing teaching, inspectors **should be 'looking at' and reflecting on the effectiveness of what is being done to promote learning, not 'looking for' specific or particular things.**

ASK THE COGNITIVE SCIENTIST

What Will Improve a Student's Memory?



1 Memory is...

the residue of thought, meaning that the more you think about something, the more likely it is that you'll remember it later.

Advice to teachers: focus on “ways to help them think about meaning and avoid study methods that do not encourage them to think about meaning”.

Teaching idea [1]

Present new language by asking students to generate the meaning of each key word themselves (either by drawing a representation or writing what they think it means). Then reveal the meanings and ask students to correct their drawings / written versions.

Generating errors followed by feedback led to significantly better memory for the correct definition/translation than either reading or making incorrect choices.

Potts, R; Shanks, DR; (2014) The Benefit of Generating Errors During Learning.
Journal of Experimental Psychology: General , 143 (2) pp. 644-667

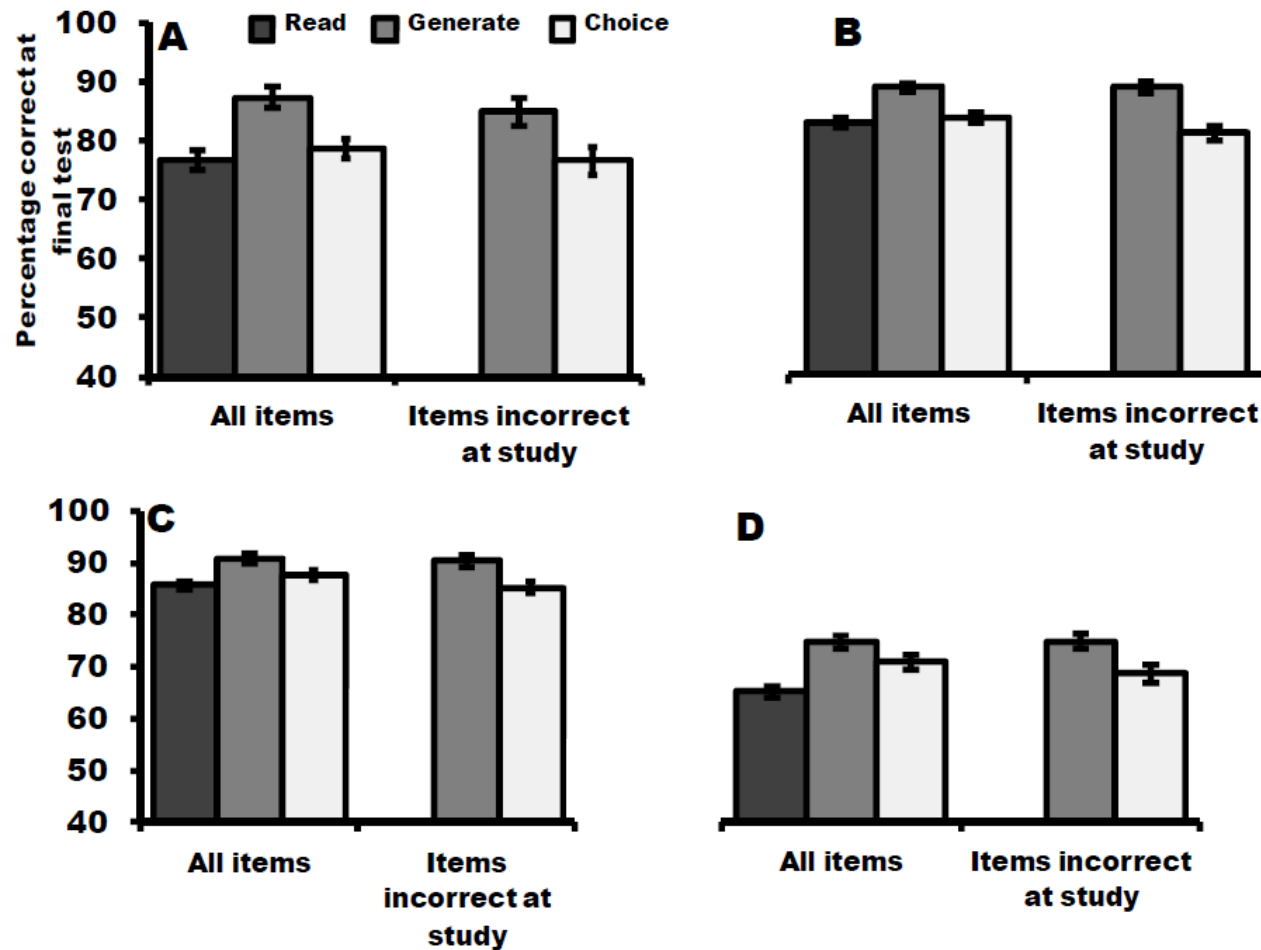


Figure 2. Mean percentage correct at final memory test in (A) Experiment 1, (B) Experiment 2A, (C) Experiment 2B, and (D) Experiment 3. Error bars indicate standard errors.

2 Repetition is...

helpful, but only when one repeats thinking about meaning. “Shallow” repetition...i.e. repetition without thinking about the meaning is not helpful to learning.

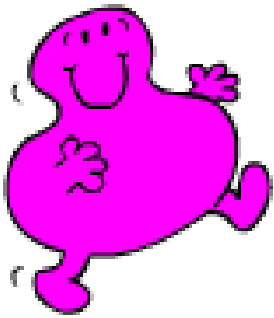
Advice to teachers: consider the drilling activities we use. Can they be tweaked so that the word-meaning relationship is sustained throughout?

Teaching idea [2]

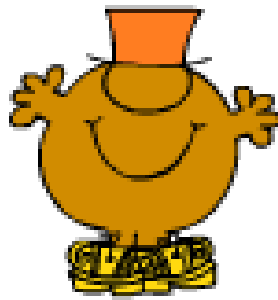
Put students frequently in the situation where they need to retrieve language from memory, but keep the link to meaning. E.g. Mini whiteboard Q&A, sentence-completion, translation – cued by pictures, gestures, English. Also works orally.

The “testing effect,” later renamed “retrieval practice” refers to the fact that trying to remember something can actually help cement things in memory more effectively than further study.

Agarwal, P. K., Bain, P. M. & Chamberlain, R. W. (2012). The value of applied research: Retrieval practice improves classroom learning and recommendations from a teacher, a principal, and a scientist. *Educational Psychology Review*, 24, 437-448.



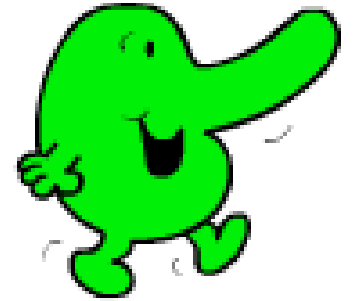
Don Glotón



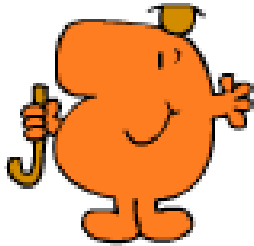
Don Tontainas



Don Feliz



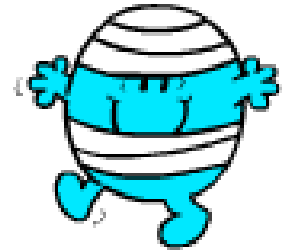
Don Curioso



Don Alreves



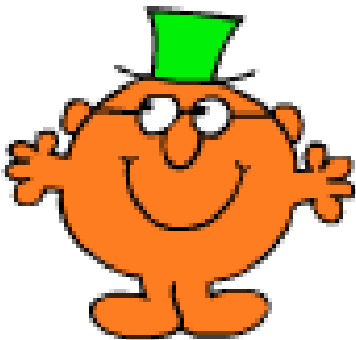
Don Cosquillas



Don Pupas



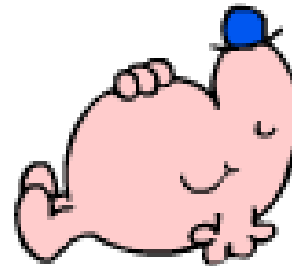
Don Lioso



Don Inteligente



Don Pequeño



Don Vago



Don Quisquilloso

3 Your access to...

things that are stored in your memory will succeed or fail depending on the quality of the cues or triggers that get you back to the information.

Advice to teachers: experiment with different types of triggers: visuals, gestures, miming. Where possible, involve students in the generation of the cues.

Teaching idea [3]

Use gestures to teach key language and to retrieve it. Involve students in suggesting cues at the introduction phase.

Language I have tried this with includes: days of the week, months, question words, pronouns, verb endings, animals, transport, modal verbs (1st person) + infinitives, and of course, phonics key words, preterite and present 1st person regular verbs, etc...

Kaip?

ką?

Kur?

Kada?

Kas?

Kodėl?

Kiek?

Kiek?

Kuris?



4 But...

some to-be-remembered material interferes with other to-be-remembered material, and the greater the similarity between them, the more likely that the cues will be the same, and therefore the more ambiguous they will be.

Advice to teachers: to minimize forgetting, focus on ways to ensure that we have cues and that they are distinctive.

Teaching idea [4]

ser - to be



avoir: to have



j' ai
tu as
il a
elle a
nous avons
vous avez
ils ont
elles ont

yo	soy	nosotros	somos
tú	eres	vosotros	sois
él/ella Ud	es	ellos/ellas Uds	son

5 Students (and adults)...

over-estimate what they know and therefore under-allocate time to study (just 68% of the time needed to achieve their target knowledge)

Advice to teachers: find ways to get students to assess their own knowledge more realistically.

Teaching idea [5]

Look at the following list of words and give each one a number rating 1-5 based on how well you know the word.

Look at the VKS (Vocabulary Knowledge Scale) below:

- 1. I don't remember having seen this word before.**
- 2. I have seen this word before but I don't know what it means.**
- 3. I have seen this word before and I think it means....**
- 4. I know this word: it means.....**
- 5. I can use this word in a sentence, e.g.....**

(ref: Wesche M & Paribakht T.S. (1996) "Assessing second language vocabulary knowledge: depth versus breadth", The Canadian Modern Language Review 53, 1:28)

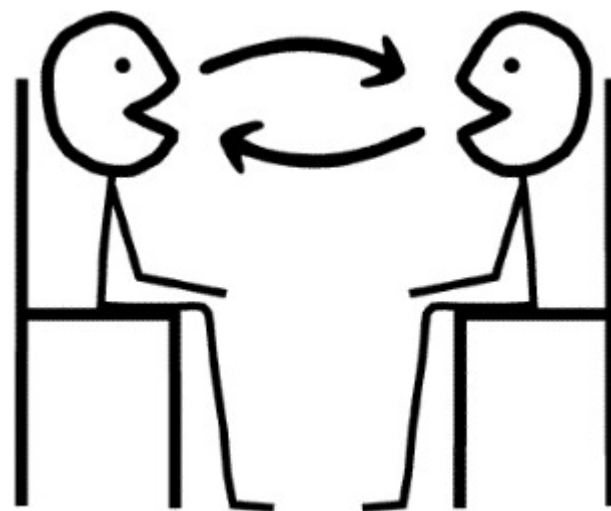
6 Master it and...

keep going (an extra 20% of the time it took to master) – overlearn. Some forgetting occurs so don't just learn to the point where you only just have it memorised, keep going beyond that point.

Advice to teachers: convince students of this!
Tell them “Don't learn it until you get it right, keep going until you can't get it wrong!”

Teaching idea [6]

Use peer tasks to make over-learning varied and enjoyable, either Q&A style such as ***speaking lines***, or ***peer testing*** style, where one has access to the answers.



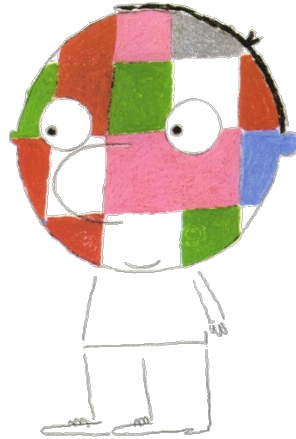
Lynch, D., & Maclean, J. (2001). **A case of exercising: effects of immediate task repetition on learners' performance.** In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks: Second language learning, teaching and testing*. Harlow, Essex: Addison Wesley Longman.

7 Make the meaningless... *meaningful.*

“Think about meaning’ sounds like good advice, but there are things to be learned that are, essentially, meaningless. For example, what should students do when learning that *rojo* is the Spanish word for *red*? Meaningless material is difficult to learn because it is hard to find a good cue. As discussed above, remembering is prompted by cues, and it is hard to associate the cue (the Spanish word for *red*) with the target memory (*rojo*) when the cue and memory have no meaningful relation.”

Advice to teachers: don’t give up!

Teaching idea [7]



¡Hombre de Color!
un libro de Jérôme Ruillier