



## Mmemory Friendly Learning

### Summary

New learning is not the goal  
New understanding is not the key  
The aim of education  
Is long-term memory.

### Where did it all go wrong?

One week, several years ago, my year seven's topic was fractions. To make my lesson planning easier, I also decided to teach fractions to my other classes: all I needed to do was to make the questions harder or easier depending on which year group I was teaching.

During that week, the lessons went well. The students seemed to understand the concepts. Homework was generally correct. Everyone was able to answer most of the questions in a test at the end of week. Job done!

But hang on a minute! If my lessons were so good, why did I have to re-teach fractions to my older year groups? I had taught them in year seven already. Why did I have to teach them again?

The answer was simple and obvious - they were unable to recall what they had 'learned'. I decided to see if there was a way to improve my students' long-term memory: I found several.

## Introduction

SMILER is an acronym  
Of the things that, I now know,  
Should be used in schools and colleges  
To help education grow.

### What's in a word?

I began to look into memory and whether it could be improved. I found a group of books that showed that we have extraordinary memories that can be accessed using simple memory techniques. <sup>1</sup>

Although these books were designed for individual use, I showed how the ideas could be used in mass education using memory stories.<sup>2</sup> I began producing online resources for teachers and students, based on my first learning acronym: Smile. <sup>3</sup>

In the following years, I looked into many aspects of memory, education and learning. I found several other ideas to improve education. These are summarised by my latest acronym, Smiler. ( Explained on the next page. )

### What's the point?

About the same time that I started researching memory, one of my year-nine pupils asked me a question. She asked me to explain what the point of school was.

The girl was a hard-working student who tried her best in class and with her homework but performed badly in exams. I understood her question - What was the point of her working hard when she ended up with little to show for her efforts? But I struggled to answer it.

This document is my attempt to finally answer her, to reveal the fundamental aim of education, and to highlight two simple ways of improving our teaching and learning.

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<sup>1</sup> The Mind Set by Tony Buzan et al, BBC Worldwide Publishing

<sup>2</sup> <http://essemmielle.com/Mmemory-stories.php>

<sup>3</sup> SMILE: **S**taories and **M**nemonics Improve **L**earning **E**verywhere. ( [The Learning Smile](#). [The Learning ABC](#). )

**SMILER**

( Spacing, Mnemonics, Interleaving; Learn Excellent Recall )

Ess is for Spacing

And by using the spacing effect <sup>4</sup>

We can dramatically improve our long-term recall

Dramatically improve what we can recollect.

Emm is for mnemonics

Even though the emm, we do not say

Mnemonics help us to recall

For ever and a day.

I is for interleaving <sup>5</sup>

The best way to understand things new,

New skills or ways of thinking

The best way to learn them true.

The last three letters, 'ell', 'e', and 'ar'

Should be written large and tall

When we use spacing, interleaving and mnemonics

We 'Learn Excellent Recall'.

A smiler is someone who uses spacing, interleaving and mnemonics to learn excellent recall. These techniques have been shown, through decades of research, to be far more effective than the current use of rote recall and block practice. <sup>6</sup>

To use these ideas in education is remarkably simple e.g. spacing and interleaving can both be introduced by making a small change to existing lesson plans.<sup>7</sup> One school recently reported significant improvements in GCSE performance just by using a type of interleaving during revision.<sup>8</sup>

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<sup>4</sup> <http://gocognitive.net/interviews/spacing-improves-long-term-retention>

<sup>5</sup> <http://gocognitive.net/interviews/benefits-interleaving-practice>

<sup>6</sup> <http://gocognitive.net/interviews/benefits-interleaving-practice>

<sup>7</sup> <http://essemmielle.com/Memory-Friendly-Learning.php>

<sup>8</sup> <http://www.greatmathsteachingideas.com/tag/interleaving/>

### Conclusion

If you want to be a smiler  
Remembering as you learn  
Then remembering what you come to understand  
Should be your main concern.

So, space out when you test your recall  
Make sure to mix up your learning and interleave  
Use mnemonics full of imagination  
And there is little you cannot achieve.

Our brain is amazing  
It will do whatever we need  
And, just by learning its language  
Our potential, we can all exceed.  
The brain's language is imagination  
And association between ideas  
The best way to show this on a page  
Is a mindmap with pictures that please.<sup>9</sup>

### What is the aim of education?

Everyone agrees that learning new things is important. Most will accept that remembering what we learn is also key. Until now, in almost all forms of training and education, we have focussed on understanding and assumed that memory would take care of itself. Unfortunately, this is not the case.

If we want students to be able to understand and remember what they learn, we need to make their learning memorable<sup>10</sup> i.e. much more memory friendly.<sup>11</sup>

So, the aim of education is, or certainly should be, Memory Friendly Learning.<sup>12</sup>

<sup>9</sup> <https://www.youtube.com/watch?v=nMZCghZ1hB4>

<sup>10</sup> <http://www.essemmielle.com/Make Learning Remorable.pdf>

<sup>11</sup> Learning is most effective when we combine deep understanding with long-term memory; that is what is meant by [memory friendly learning](#).

<sup>12</sup> <http://www.essemmielle.com/What is the point of education.pdf>

