

## Notes from Fiona Mauchline's - session/chat transcript

### Teaching with eyes closed: using the senses as the route to learning

Hana, thanks for the pics, where can attendees find them?

Free pictures for teachers by teachers: <https://www.flickr.com/photos/eltpics/>

The ideas in this presentation are completely based in neuroscience.

Fiona is now based in Oxford, works for one of the universities there and has access to many clever, erudite and learned experts in the field of neuroscience, all of which has led to an interest in the neuroscience of learning, memory and language and multi-lingualism.

According to MRI scans we now know which parts of the brain are triggered by experiences in life. The Universities of Lancaster and Oxford and several others have started a project studying what happens in the brain when we're learning languages and when we're processing second languages. It is known that when you trigger the senses you trigger the memory.

Three kinds/types of memory:

Declarative Memory – memory of facts (for e.g. What's the capital of Burkina Faso? What date was the French Revolution)

Procedural Memory (how to write / drive) – first you have to do a lot of mental processing (pick up a pen, know how to hold it properly etc) then it becomes automatic.

Episodic Memory (memory of experiences, nostalgia – where did I put my pen?). We store and record that kind of memory through the senses. Those memories are triggered by the senses. We have all walked into a place, noticing a smell which instantly triggers a memory of something – something that we might have forgotten. This happened to Fiona once in a hotel in Spain when a familiar smell (air freshener or perfume) triggered a whoosh / flood of memories of her grandparents' house.

In the classroom, typically, we always ask our students to access the procedural memory (how to do the exercises, how to do true/false task) and the declarative memory (what's the difference between present perfect & past simple?). If we complement these by also accessing the episodic memory, we can turn lessons into a more holistic complete experience and create a fully formed memory.

You still need to be a learner-centred teacher and do memory recall and recycling in order to allow the synapses to form – synapses are like little paths through a cornfield. If you walk through the cornfield once, the corn will bend but it will eventually bend back again whereas if you constantly walk along the same path the corn will not bend back. This is the same for synapses in the brain which become stronger with recall and help you to create that memory.

Five senses: Sight, Touch, Smell, Hear, Taste

Other suggestions from contributors: Perception, Intuition, Sixth Sense, Feel, Conscience, Perception of Time, Sense of Self, Pain, Perception of Movement, Balance, Thermoperception, the inner ear senses of balance and orientation

From Fiona: Proprioception- the perception of movement

Fiona demonstrates an activity: with her hands she mimes holding different objects and asks people to guess what objects she is pretending to hold.

Another activity to do with students: Brainstorm vocabulary using a smell as the inspiration.

Fiona mentioned a spurtle (originally mis-spelt by me as spittle). A spurtle is used for stirring porridge.

Another activity: Imagine you are holding a stone. Can you feel it in your hand? How does it feel? Brainstorm a list of words.

Fiona mentioned the song "Bring Me To Life" by Evanescence as a useful one to do in class because it triggers the senses. I suggested "Crosstown Traffic" by Jimi Hendrix as another good one for evoking the sounds and sensations of a busy city.

Close your eyes and imagine - use this instruction in class to trigger the senses and elicit vocabulary (sounds, smells, sights)

Show three different pictures, ask students to pick one and close their eyes and focus on that image. Then imagine what do you see, feel, smell

An interesting question from Tom Jowett: Fiona- the activities sound fun, interactive and flexible, which is great. My question is how one would go about connecting and practising the results- lots of varied vocab, possibly unconnected, from the students' own minds? What kind of follow up activity works?

Fiona's response: Tom Jowett, the creativity function in the brain is also largely based in the same part of the brain, so it will tend to try to make connections. This means you can use the vocabulary as the basis for dialogues, sketches, descriptions, and narratives, as well as word games. But it's not good to ask for spontaneous dialogues - they need to look at the words for a few minutes before speaking or writing.