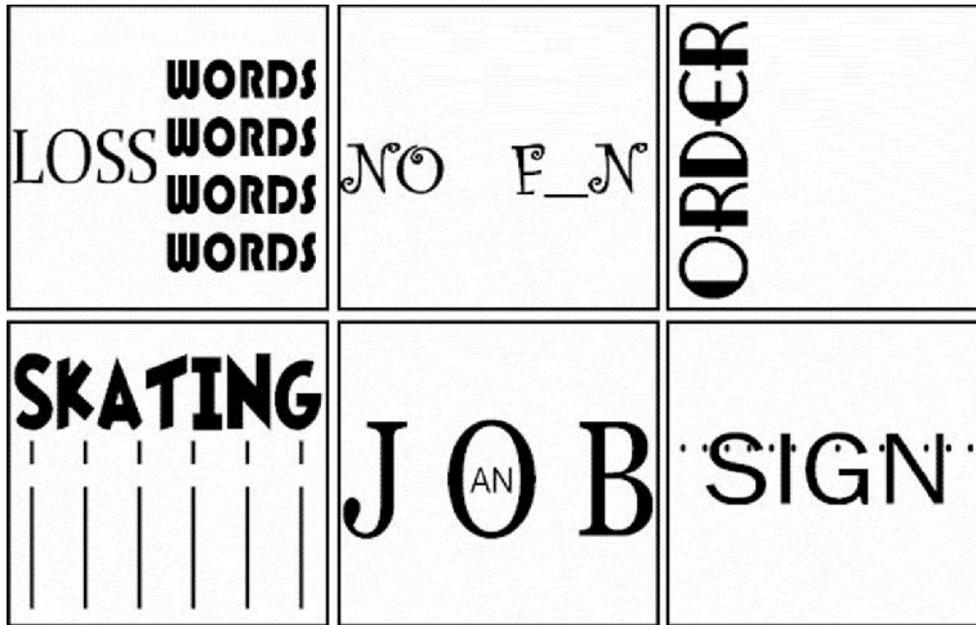


# Brain Strain to Brain Gain

Marc Ratcliffe, MRWED Training and Assessment

## Pre-session Thinkable

What are these word puzzles saying?



Share some Brain Facts:

## Key Research to support the application of Brain Science

***“The illiterate of the 21<sup>st</sup> Century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”***

- Alvin Toffler

Globally, organisations are spending more than \$250 billion annually on employee learning. Therefore, time and money is at risk if transfer doesn't occur the first time. <sup>1</sup>

) Learning is an \_\_\_\_\_ process. Participants must have adequate rest, health and physical ability. Basic needs of students must be satisfied before they are ready or capable of learning. <sup>2</sup>

) Psychologists and neuroscientists who study the brain tell us that the brain goes into a trance approximately 30% of the time even when doing crucial tasks. Therefore, \_\_\_\_\_ the brain is \_\_\_\_\_ not optional. <sup>3</sup>

) When standing up your brain is fed at an optimal rate. <sup>4</sup>

) Reduce \_\_\_\_\_ to increase \_\_\_\_\_. <sup>5</sup>

) The \_\_\_\_\_ component of learning brings us to a state of openness for learning. CIO - Control, Inclusion, Open. <sup>6</sup>

) Participant-centred learning drives \_\_\_\_\_.<sup>7</sup>

) Full \_\_\_\_\_ when learning something for the first time makes a difference. <sup>8</sup>

<sup>1</sup> 2014 State of the Industry Report ATD

<sup>2</sup> *Choice Theory: A New Psychology of Personal Freedom*. William Glasser, PhD. HarperCollins Publishers (January 6, 1999)

<sup>3</sup> Kane, M.J., Brown, L.E., Little, J.C., Silvia, P.J., Myin-Germeys, I., & Kwapil, T.R. (2007). For whom the mind wanders, and when: An experience-sampling study of working memory and executive control in daily life. *Psychological Science*, 18, 614-621. Language: English Date: 2007

<sup>4</sup> Brain activation during maintenance of standing postures in humans Yasuomi Ouchi, Hiroyuki Okada, Etsuji Yoshikawa, Shuji Nobezawa, Masami Futatsubashi DOI: <http://dx.doi.org/10.1093/brain/122.2.329> 329-338 First published online: 1 February 1999 Yasuomi Ouchi, Hiroyuki Okada, Etsuji Yoshikawa, Shuji Nobezawa, Masami Futatsubashi DOI: <http://dx.doi.org/10.1093/brain/122.2.329> 329-338 First published online: 1 February 1999

<sup>5</sup> *Life Unlocked: 7 Revolutionary Lessons to Overcome Fear*, Srinivasan Pillay MD. August 2011.

<sup>6</sup> *Choice Theory*

<sup>7</sup> Watson, J.M., & Strayer, D.L. (2010). Supertaskers: Profiles in extraordinary multitasking ability. *Psychonomic bulletin & review*, 17, (4), 479-485.

<sup>8</sup> (Mitchell, J.P., Dodson, C.S., & Schacter, D.L. (2005). MRI evidence for the role of recollection in suppressing misattribution errors: The illusory truth effect. *Journal of Cognitive Neuroscience*, 17, 800-810.)

## Creating Learning “Stickiness”



Malcolm Gladwell in his book *Tipping Point* (2000) defined “stickiness” as “the specific content of a message that renders its impact memorable.”

In the context of workplace training, stickiness tracks the level of learner engagement and knowledge retention.

A “sticky” training course means that lessons taught in the course are well engrained in the learners’ memory and are likely to actually be applied on the job.



**Activity:** What does stickiness mean to you?

## Five ways to help make the learning stick

1. Make it \_\_\_\_\_.
2. Evoke \_\_\_\_\_.
3. Use \_\_\_\_\_ times.
4. Provide Choices.
5. Put the learner in the \_\_\_\_\_.

## Using Brain Science to help with the content

1. Consider the \_\_\_\_\_ curve.
2. Recognise the myth of \_\_\_\_\_.
3. Apply sitting/standing theory.
4. Remember that the \_\_\_\_\_ is social.
  - a. It needs interaction
  - b. It builds connections with other brains
  - c. Think of the yawning effect
5. Acknowledge that brains have short \_\_\_\_\_ spans.
  - a. They need repetition
  - b. Multiple channels of processing creates deeper learning
  - c. Curiosity and novelty gives us a dopamine hit!
6. Learning is enhanced by \_\_\_\_\_ the big picture and allowing students to \_\_\_\_\_ the details themselves.



**Discussion:** What does this mean for us in our training and assessment roles?



### Using Props to Anchor your Message

The process of anchoring, is an effective means to solidify and transfer learning experiences. In its simplest form, anchoring involves establishing an association between an external cue or stimulus and an internal experience or state, as in the example of Pavlov ringing the bell for his dogs. A lot of learning relates to conditioning, and conditioning relates to the kind of stimuli that become attached to reactions. An anchor is a stimulus that becomes associated with a learning experience. If you can anchor something in a classroom environment, using a prop for instance, you can then bring the anchor to the work environment as a powerful reminder of what was learned.

Here are six reasons why you would use props to anchor your message:

1. To make a **specific** point
2. To make the learning **memorable**
3. To help learners **understand** the message more effectively
4. To support **humorous** interaction
5. To maintain **attention**
6. As a **reward**.



**Discussion:** How else could props be used in training?



**Activity:** Using one of the props from the “props box” create an anchor to a topic, concept or learning outcome with which you are familiar. Describe the connection between the prop and the learning below:

## Creating a Soundtrack to Learning

### Why Music?

- ) Music is something all human cultures have.
- ) Music both pre-dates and \_\_\_\_\_ language.
- ) Music helps to \_\_\_\_\_ motor function.
- ) Music is even powerful \_\_\_\_\_.
- ) Brains are wired for \_\_\_\_\_.
- ) We want to create learning \_\_\_\_\_.
- ) We need to be \_\_\_\_\_ and \_\_\_\_\_ with learners!



**Activity:** Think about films, television programs or advertising – why is music used?

)  
)  
)  
)  
)



## How music effects learning

- ) Music helps create learning states that assist in holding \_\_\_\_\_ and \_\_\_\_\_ retention of information.
  
- ) Music \_\_\_\_\_ mental, physical and emotional rhythms.
  
- ) Music facilitates students' attaining a state of deep \_\_\_\_\_ and \_\_\_\_\_.
  
- ) Songs, chants, poems, and raps will \_\_\_\_\_ memory of content facts and provide a \_\_\_\_\_ for retrieving information easily later.



**Discussion:** How have we used music so far?



- ) Background music as students enter, exit or take a break is used to provide a welcoming atmosphere and helps prepare and motivate students for learning tasks.
- ) Music provides a positive environment that enhances student interaction and helps develop a sense of community and cooperation.

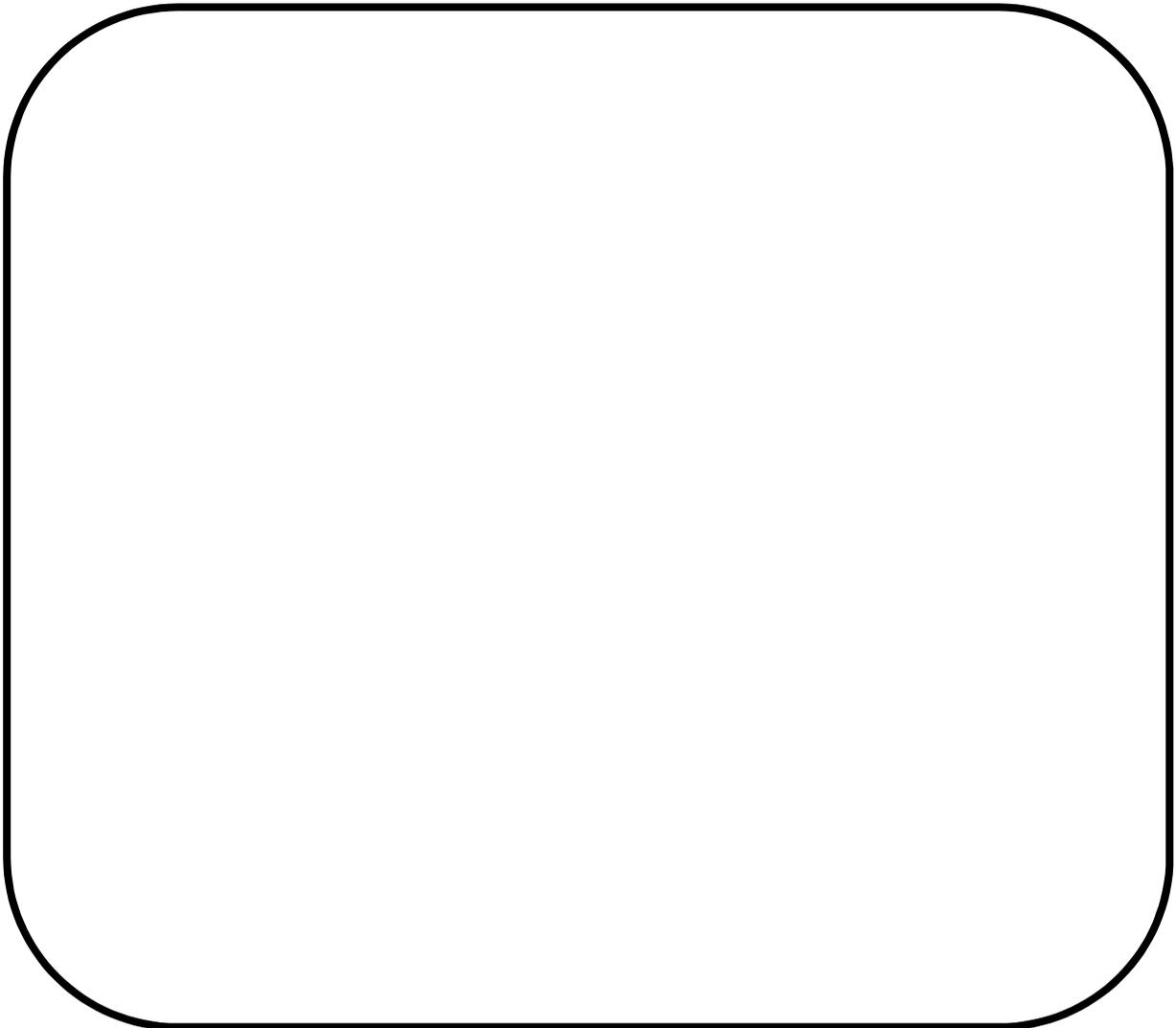
### **Where to find appropriate music**

- ) Itunes – “royalty free music” or “background music”.
- ) [www.royaltyfreemusic.com](http://www.royaltyfreemusic.com)
- ) [www.royaltyfreeheaven.com](http://www.royaltyfreeheaven.com)
- ) [www.stockmusic.net](http://www.stockmusic.net)



**Activity:** “Theme Song” – Select a theme song for your table group and explain how this might be a metaphor for learning

## Notes/Actions



Marc is the CEO of MRWED Training and Assessment, a private RTO specialising in Trainer Training and Leadership and Management. He is a multi-award winning trainer, author and education entrepreneur and believes that fun and engagement are critical for learning to thrive.



Jason is the CIO of MRWED Training and Assessment. He is an award-winning trainer, workshop facilitator and conference presenter. He is a strong advocate for participant-centred learning and loves supporting organisations in developing dynamic and engaging programs for their own people.

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