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Learning myths #2: Learning formats ■

Many believe that there are different types of learners

I.e. some people learn more effectively from visual material, some from auditory material and others from kinaesthetic practice

Therefore, instruction should be tailored to each learner's preferred style (1/11)

Paul Howard-Jones (2014) suggested that this assumption is based on the fact that different regions of the cortex have different roles in visual, auditory, and sensory processing, so students should learn differently "according to which part of their brain works better" (2/11)

Yet, despite the popularity of the theory, there is ample evidence to contradict its validity (3/11)

Tesia Marshik (2015) gave an example of a study to test this.

Participants are given a list of words to memorise. They are either presented with the written list of words, with images of the words, or they listen to the words being read aloud (4/11)

The assumption would be that visual learners would recall more words when they saw them, and auditory learners would recall more words when they heard them, and so on (5/11)

But when similar studies were replicated across many different contexts, with many different people of all ages, the findings were clear:

Learning is the same regardless of how the content is presented to the learner (6/11)

In 2004, Frank Coffield led research into the 13 most popular models of learning styles and found there wasn't sufficient evidence to cater teaching techniques to various learning styles. Massa and Mayer found similar results in 2006 (7/11)

So, if learning styles don’t exist, how should we deliver content?

Pashler et al (2009) concluded that this depends on the content itself. A writing course would be best delivered by verbal instruction, a geometry lesson would require visual-spatial materials, etc (8/11)

We try to incorporate this into our courses - we match our teaching to the content.

We’ll explain a physics concept through animation, but focus on written mathematics when solving a physics problem. (9/11)

Marshik argues that new information is more likely to be retained when it is organized in a meaningful way - when we are shown examples or when it is connected to our pre-existing knowledge

But information isn’t made meaningful by catering to
specific learning styles (10/11)

E.g. the best way to learn how to play football is by playing a game. But watching a game, or hearing coaching while you’re playing would also help

Incorporating multiple sensory experiences into a lesson, rather than limiting ourselves to just one, can enhance learning (11/11)

Sources:

https://t.co/XIFCN19cWb

Massa & Mayer (2006) Testing the ATI hypothesis...

Ted (2015) Tesia Marshik: Learning styles & the importance of critical self-reflection

Pashler et al (2009) Learning styles: Concepts and evidence