



From knowledge to action

What we learn is important, but even more important to adults is why we learn, and how to do it. Ruth Donde and Lettie Dalton take a look at what science tells us about the way we learn and why we need to keep on just doing it!

Information abounds in our hyper-connected world making knowledge more accessible than ever, yet who has time to truly learn these days? Knowledge is one thing—absorbing facts that you can read from books or from doing a Google search—but the most difficult problem with learning is how to translate this knowledge into action. When you think about some of your biggest learning experiences, I bet they weren't something you learned in the classroom. Think about it!

The time of going into a classroom to gather facts and then regurgitate them is over! How much money and time is wasted by attending one-day training programmes? Take a training programme on time management, for example, where at least 70 percent of the time is spent being told about different techniques that you could use. If, in a month's time, you asked the majority

of attendees what they had implemented, the answer would be something like: “Oh, it was a good course, but I’ve been too busy to do anything with it.”

Much has been written about the ‘knowing-doing gap’, a term coined by well-known authors and teachers Jeffrey Pfeffer and Robert Sutton. They suggest we have a learning transfer problem. This can be due to workload, information overload, difficulty with making decisions during change, or lack of motivation to do so.

WHY AND HOW WE LEARN

What we learn is important, but more important to adults is why do it, what is motivating us and then how to do it. Let’s first look briefly at the why, then we’ll look at how.

Why we learn something is key. Neuroscience shows we will do things if we somehow activate our reward circuitry. This can occur through internal motivation (our own drivers of value and fulfilment) versus external motivation (carrot and stick). In a number of studies, external rewards were not seen to be effective in learning. When we focus on internal motivators, however, reward circuitry in the brain is seen to be activated. Intrinsic drivers include choice, certainty, continuous progress, contribution and connection. Using a coaching approach can tap into these motivators and support the learning process.

In many cases, however, it’s not about *what* you learn that counts, but rather *how* you learn that affects how efficiently and for how long the content is retained (or not).

Research into learning has isolated a few key practices which produce robust, durable results and are proven to be relevant across a variety of different circumstances.

Distributed practice, or spreading out of learning, is both efficient and effective. In 254 studies of more than 14,000 participants, students recalled more after distributed learning than massed learning. This is a highly effective way of learning languages and skills requiring physical practise, and it can be used to support the application of knowledge or skills into a useful practice. This practice over time then becomes more masterful. As we know, most mastery is not a unique and freak genius, but rather the hours and hours of actual doing. Einstein spent years of trial and error before achieving success. This is ideal for ‘soft skills’.

Self quizzes, or testing ourselves versus having others test us (which creates a fear response), improves learning and retention of information. This can be done using flashcards, or a simple Q&A at the end of a module. Practise is thought to trigger searching within long-term memory, accessing similar/related information and forming multiple pathways, helping to further access information more easily. Shorter tests taken more frequent-

ly are more effective. This is heightened further when feedback is provided on correct answers.

Handwriting is also proven to be effective. We see different brain activity with putting pen to paper than with tapping key-strokes. With handwriting, neuronal pathways related to spatial processing and movement become active. Seeing handwriting, as opposed to typed letters, may elicit motor activity in the brain. It is possible that hand-formed letters are embedded more deeply, becoming building blocks for more solid mental architecture.

Questioning is key too, using elaborative interrogation or asking ‘why’, and self-explanation—which is being able to answer ‘how do you know’ or ‘how does this relate to what you already know?’ Interleaving is another technique that supports embedding learning more easily. It’s about taking one piece of learning—say focusing on getting your kicking right in learning to swim—then, once you have taken this to a particular level, you can add in focusing on improving arm movement, or breathing to the side.

Also, people are better at learning new things when not under close scrutiny, when they don’t feel as if they are constantly being assessed and evaluated, and when they aren’t working in the presence of direct competitors. There is much evidence that working around those who are thought to be judging one’s work enhances performance for well-honed tasks; known as the social facilitation effect. The opposite is true for tasks that require complex mental processes and attention. The so-called social inhibition effect makes it harder to learn new things or generate new ideas. Research suggests that competition inhibits learning and creativity because learners focus their attention on what competitors are doing and on the reactions of third parties such as leaders and peers, rather than focusing on the task at hand.

TIPS FOR SUPPORTING GREAT LEARNING

- 1. Identify your ‘why’—your reason for learning that specific thing.** Consider the benefits and implications of your learning. The greater you consider the benefits and positive impacts of the learning to be, the more you will increase your internal motivation—meaning you will be more likely to remember and practise your learning.
- 2. Gather knowledge.** Embed this by writing things down, gather bits of information at a time and repeat with spaces in between. When you go back test yourself, you can ask questions to understand the theory, and then ask how you are going to use this—and ensure you can explain the usefulness to yourself.
- 3. Practise skills.** Practise in those spaces between formal learn-

FLEMING'S VISUAL, AUDITORY AND KINAESTHETIC (VAK) MODEL

Visual learners—learn through seeing

Like information presented in charts or diagrams, using written information or watching a demonstration. When you self-study or revise, you might use diagrams, mind-maps or written notes that are highlighted or color-coded.

Auditory learners— learn through listening

Learn well in classrooms, listening to teachers talk or by watching talks or speeches, or listening to podcasts. When learning alone or revising, you may find that talking helps or you may even record yourself summarising some notes and play it back to yourself later.

Kinaesthetic learners— learn through moving, doing, touching

Enjoy learning through movement; and touching or interacting with what you are trying to learn works best for you. Tracing out words as you say them or walking while listening to audio can help to take in the information.

ing sessions by applying learned skills to real-life scenarios, making it relevant immediately.

4. **Hone skills.** Keep trying to better what you've done before.
5. **Find out how you learn best.** The way your brain is wired affects how you take in information best—your preferred way of learning. A simple model for identifying your learning preference is Fleming's Visual, Auditory and Kinaesthetic (VAK) model (see table). We all use all three modalities, but one or two tend to be preferred. Using the style/s that you identify with most will increase your comfort level when learning.
6. **Decide on a plan.** Uncertainty stops people in their tracks right in the middle of the knowing-doing gap. Deciding on a plan, and then getting into action will catapult you over that gap.
7. **Don't be afraid!** Those who try to learn through fear cause paralysis (freezing) more often than action. Fear widens the knowing-doing gap. When people stop being afraid and start feeling calm, they become far more productive and open to learning.

Using this approach can help you to move from your head into action. Whoever learned to drive a car solely by reading up on

driving a car? Testing yourself and practising small bits over time surely helped! Don't substitute talk for action.

Knowledge no longer needs to be found in a classroom—this can best be gathered in a way that is self-paced and works for the individual learner. The learning environment (eg, classroom sessions) can be used for practise of the skills, interfacing with others and the facilitator. Then the real learning can take place back where the new learning is to be used in the first place. This is where the mistakes are made, skills are honed and tailored to your unique environment.

Time to bring back the pen and paper, and then get up and yes, I have to say it, "Just do it"—and then keep on just doing it! 

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