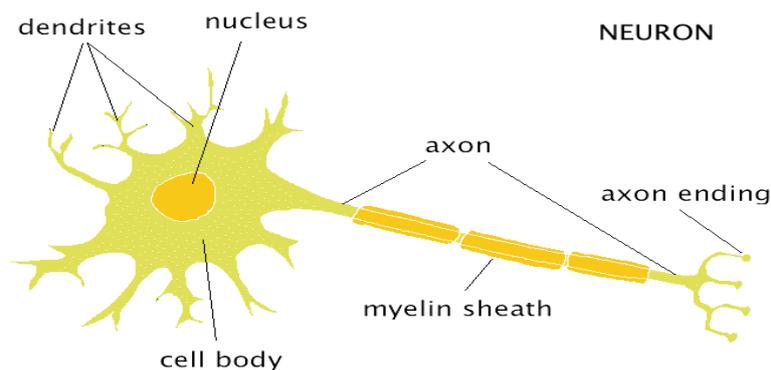


Day 1 – Our Brain and Our Mind

How does your brain work? Well, I'm going to try to explain.....

The brain is the most complex part of the human body. The brain weighs around three pounds. This three-pound organ is the seat of intelligence, interpreter of the senses, initiator of body movement, and controller of behaviour.

Your brain contains cells called neurons. You were born with around 100 billion neurons. Dendrites grow out of neurons when you listen, write, talk and practice something. Learning is a natural process and every time you learn new things, dendrites grow and form (they connect, they grow thicker and they form double connections). For this to happen you need to practice what you learn. Without practice the dendrites are weak and they do not grow.



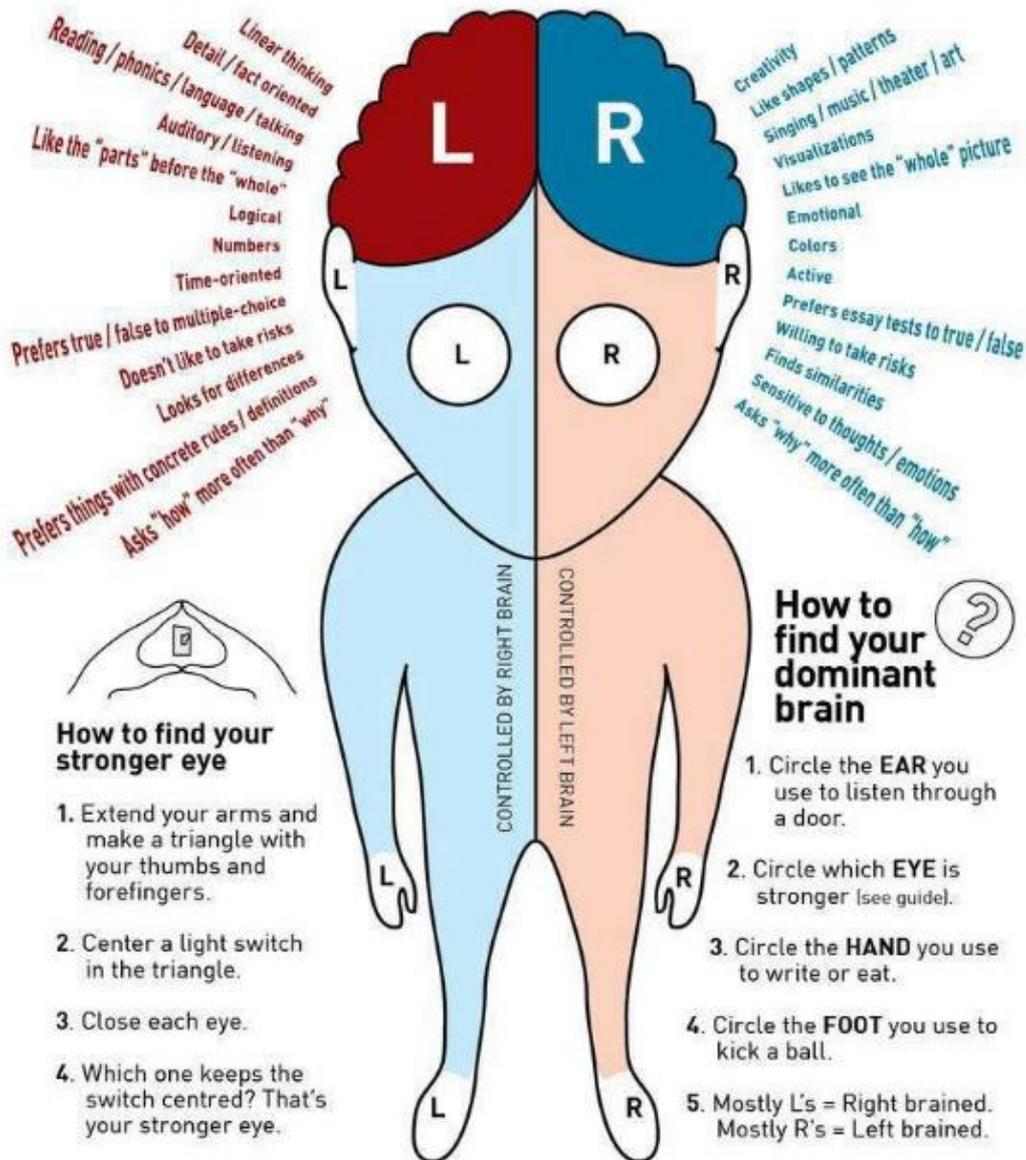
Neurons are also used to control many other functions in your body for example, communication, sending messages around your body.

Did you know that if you learn something new and do it only once or twice; the dendrite connection is very fragile and can disappear within hours.

- Within 20 minutes, you remember only 60%.
- Within 24 hours, you remember only 30%.

If you practice within 24 hours, and then practice again later, you remember 80%.

We also have what is known as the left and the right brain (left and right cortex)! In most people the left brain deals with logic, numbers, analysis etc and the right brain deals with imagination, colour, daydreaming etc. We all have a dominant brain. Have you ever wondered what your dominant brain is? Try the following exercise:



Were you aware of this? Have you ever been told that you are talented in some areas but not in others?

This simple test does not mean that you should throw the towel in you are controlled by one side of your brain more than the other, it just means that you need to look at the techniques you use and put in a bit more effort i.e. you need to learn in a different way. This is what Study Smart will give you.

We also know that emotions play a huge part in how we learn. When learners feel unconfident or anxious, certain chemicals flow in our brain that signals DANGER! We either run away, this is the flight reaction = run for your life! Students mistakenly think they have a poor memory, but it is their emotions

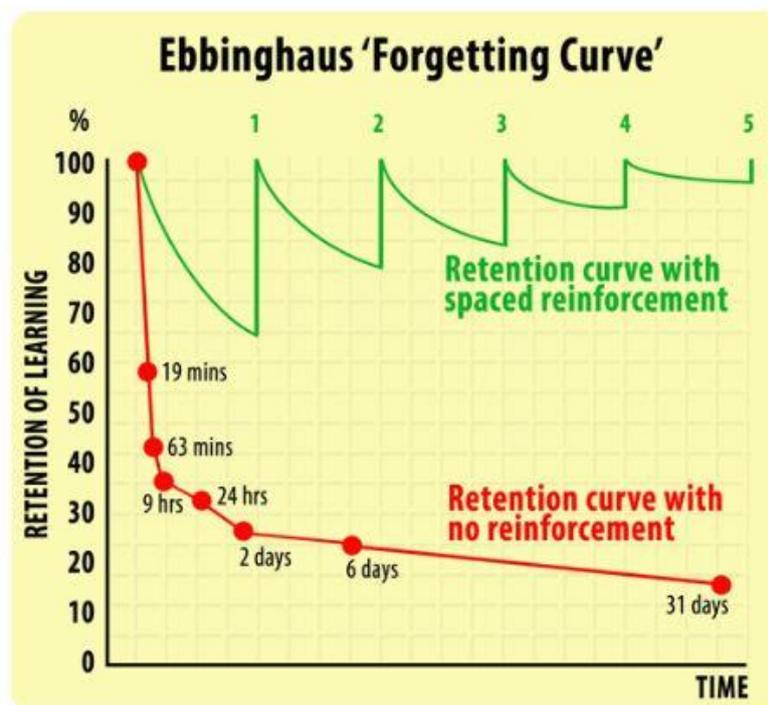
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that are sabotaging them. When learners feel confident, different chemicals flow in our brain that make them work quickly and well = I can handle this. This is the fight reaction. We touch on the emotions that are unhelpful and negative so you can control your emotions and not allow your emotions to control you.

Finally, we also know that a huge percentage of why students fail is due to their own thought process. One of the sayings we use time and time again is 'We are what we think'. If you think you are going to fail, you will fail. During the next few days we will also help you learn how important a positive attitude is to success.

We cannot stress that everyone and we mean everyone has the ability to learn, without exception. It doesn't matter if in the past you don't feel you had the ability, it doesn't matter whether people (even teachers) have told you that you are not bright enough, it doesn't matter if you learn well and stumble during the exams (have mental blocks). If you follow the techniques and use the tools presented to you over the coming days YOU will have the opportunity to turn all this around.

You need to review everything you study as the information will only stay in your short term memory if you don't. Keep re-reading any notes you take to ensure that the information sticks. Here is an illustration of Ebbinghaus 'Forgetting Curve':



Did you know?

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- It normally takes 5 minutes to read one page and if you are taking notes 10 minutes per page – no wonder you are so enthusiastic to start your study preparation.
- We are told in many schools and colleges that you have to read a difficult study book three times to ensure complete understanding – WHATTTTTTTTTTTTT!
- If you are studying many subjects there could be approximately 20 different topics to learn theories, facts, dates, names, ideas on – did I really say the brain was only three pounds, mine feels like it is twenty pounds just thinking about this.

Our thoughts affect our emotions and behaviours - FACT.

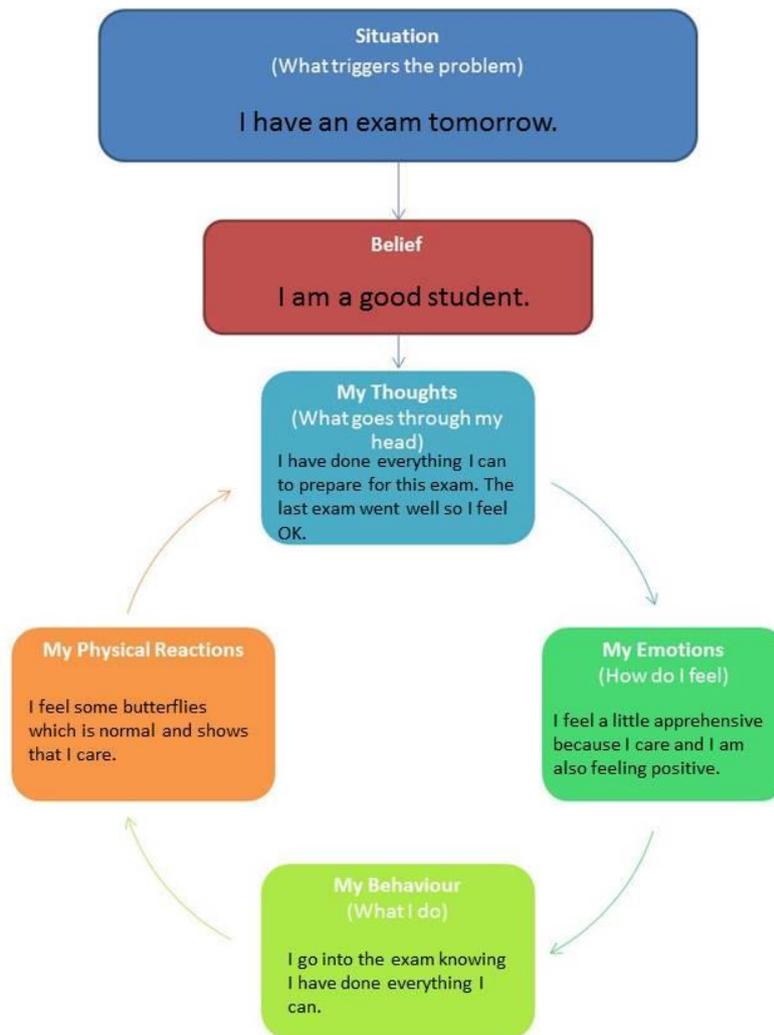
Your thoughts, feelings and emotions are not things that **are**, or that you **have**, but things that you **do**.

Thoughts have an impact on our emotions/feelings and our behaviours. Thoughts can be incorrect, erroneous and inaccurate. Negative and unrealistic patterns of thinking will impact our confidence and our self-belief or self-worth.

Let's look at the following example of someone's negative thought process just before an exam:



Altering these negative unhelpful thoughts to more realistic thoughts can reduce emotional disturbance and distress. Here is a more helpful thought process:



Most thoughts are automatic; they pass through our mind fleetingly. When a person is emotionally unhappy or under pressure the proportion of negative automatic thoughts increases (I can't, I won't, I shouldn't, they don't believe I can etc.).

Most of what we do is automatic or habitual (a habit). Think about driving a car or washing the dishes or turning on the TV, we don't think about the action or the process, it's automatic. When we are learning a new process we concentrate on it, practice it until it becomes natural; a habit. Automatic thoughts can be words, an image, a memory, a physical sensation, an imagined sound, or based on intuition – a sense of just knowing.

Sometimes our automatic thoughts can go unnoticed and usually they go unquestioned. Learning to monitor thoughts and change them to more helpful and realistic thoughts will help change your emotions and behaviours. As

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obvious as these surface thoughts can be, it does take practice to capture them. So again we will tell you to keep practicing catching negative thoughts and asking yourself whether the thought is FACT or OPINION. For reference, here are the differences between fact and opinion:

FACT

- Evidence to support its truth
- Undisputed
- Driven by rational thought

OPINION

- Based upon a belief or personal view
- Varies according to individuals' knowledge, experience, culture, belief systems etc.
- Driven by and reinforced by emotion

Today's Tasks:

- Start noticing your thoughts and emotions when anxiety creeps in and ask yourself whether the thoughts are fact or opinion - we look into this more on Day 6.
- Run through the exercise to find out your dominant brain.