

Use it or lose it

The Critical Phases of the brain



Whatever we learn gets stored on the 'hard disc' of the brain (called "cortex", meaning 'crust', the layer around the outside of the brain)

But when we are born, this disc is not ready for storage.

It matures bit by bit, **first around the backside of the head and then around the frontal lobe** (see arrow), reaching full maturation by the age of approximately 30.

Parts that are not used during their maturation, disappear for ever.

Their maturation is therefore called their "Critical Phase".

How do we know, which part is maturing and needs to be used?

Fortunately this is easy to know:



There is no greater pleasure in life, than using the part that is about to mature!

We are born as autodidacts, that acquire, by the mere pleasure of learning, full body control and the grammatically perfect possession of a language, faster than any teacher ever is able to teach us later in life.

Following the pleasure driven learning of the brain, is therefore the fastest learning imaginable.

It starts with the hearing, the sense of touch and the vision, and moves on to using the arms, then the legs and to conquering the space around us, up to the Central Sulcus, the frontier between the back and the front of the cortex.

The driving rule is: use your <u>senses</u> to gain as many experiences as possibly!

Therefore the "Critical Phases" are also called the "Sensitive Phases"

Why is the brain's inherent drive at that age, to explore the world via the senses ?

The answer is simple:



Real world impressions that didn't come in via the senses, will never be processed in the frontal lobe!

The IQ, that is able to process things from about puberty in the frontal lobe, receives only brain-internal input!

The more senses are involved when the child explores and conquers its surrounding, the larger the neuronal base will be for later intellectual processing.

What happens to a child's brain, when the child is forced to sit motionless on a chair, to keep looking in one direction and to try to follow explanations ?

The answer is sad:



It is <u>ab-using</u> the organ that makes our species:

At primary school the frontal lobe has not yet matured.

Using it, is painful: it works about 40 times slower than the child's back of the brain.

Spending 40 hours

on something, their back end could achieve via experience of arms, hands, legs and senses in 1 hour, is not only painful and not only waist of time. Sitting and not using the cells at the back end means loosing them!

They are dying during their Critical Phase!

Does this turn classrooms into graveyard of brain cells?

Examples may answer:



Alva Edison, inventor of the light bulb, has filed more than 2000 patents. Writing a patent is comparable to a doctorate. How is it possible

to do 2000 of that within one life time ?!

Right after starting primary school, his teacher has sent him to a special school. His mother new that he wasn't daft. So she home-schooled him herself, following what the little brain was claiming for, in order to

the most precious cells at the back end.

Go and look it up your self in the biographies of people that brought good to the world: what did they do during primary school?

Or look at private schools, where parents spend over 30.000 \$ on their child NOT going to school, but staying at home during the moths before exams. They know: following the pace of the own brain, instead of the school bell, creates dense, sustainable and black-out-safe memory as well as direct and fast, connections. (Mexica-Hat effect)

These pictures illustrate the age related development from the back to the front of the brain.