

# How to change the school for better learning – Three factors

Teach knowledge about the brain and let the student discover:

- I. The capacity and plasticity of the brain to successively handle skills and experiences.
- II. Emotional resources and executive functions for social competence, motivation, stimulous, understanding, endurance and taking responsibility
- III. Early insights about the consequences of the harmful stress on memory, knowledge development, life quality and health

Brain knowledge about:

## Concentration

1. A skill that can be trained. Has to be connected to being successsful
2. Understanding the connections between effort, concentration and success. This is about the motivation from inside, the release of dopamine from the brain; definitely more effective than the motivation from outside, the golden star in the old days.
3. Being undisturbed from the outside world and yourself

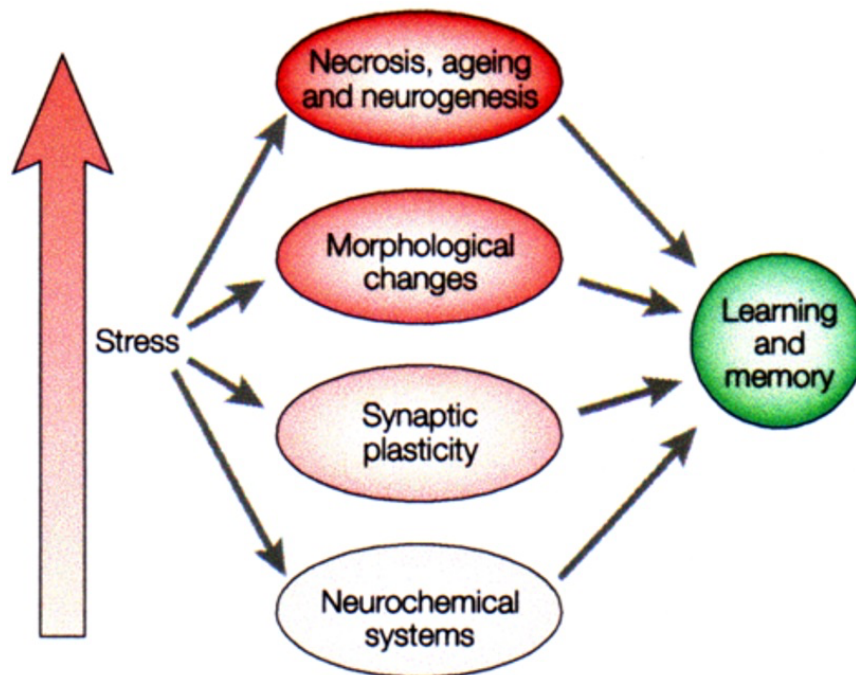
## Understanding

1. The fuel for continuing the cognitive trip
2. Understanding the knowledge stuff and the idea of going to school
3. Meta-understanding, how things hang together, explicitly and implicitly. My way of thinking about my own thinking and learning. The feeling of my ability to understand. Building a sound self confidence for continuing the cognitive trip. One begins to understand without knowing that much. 'I understand what controls the world' gives self respect and self confidence and enables over time the joy of lifelong affirmation of curiosity.

## Stress handling

Stress has impact upon the whole body, especially the genes of the brain connected to understanding (learning) and memory.

The picture below shows different effects from molecule to behaviour. We talk about positive stress (lower part of the arrow) and negative stress (the upper part) and that stress has effect upon the chemistry of the brain and the synapses. This leads to different structural changes of the cells and different functional changes of memory and learning.



**Nat rev neurosci 3, 455, 2002**

How do we teach the student to handle harmful stress?

It is about understanding context. A good summary you find in the picture of the factors that increase our ability to handle the harmful stress.

Psychological resilience: A review and critique of definitions, concepts, and theory. Fletcher, David; Sarkar, Mustafa. *European Psychologist* 18.1 (2013): 12-23.

