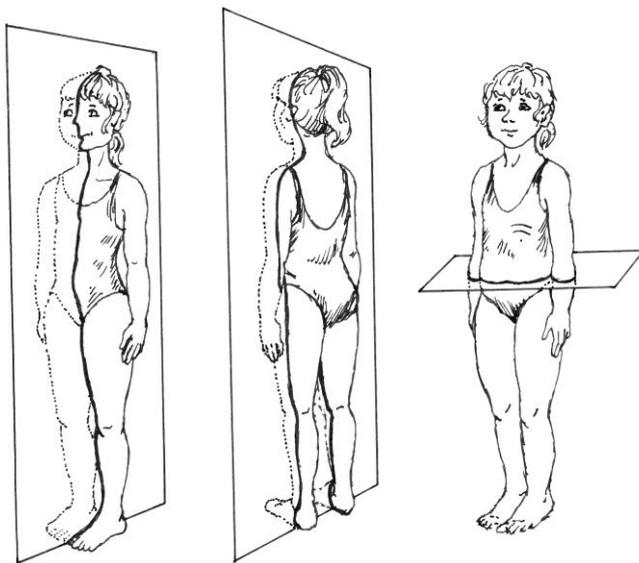


Workshop Brain Gym

Before toddlers and preschoolers are ready to learn to read and write, they need a natural development that takes place in a space, so in three dimensions. Babies, toddlers and preschoolers need about 6 to 7 years to let their brain mature enough for cognitive work on a two-dimensional surface, like reading, writing and working with numbers. If that development has stagnated, problems might arise at primary school and onwards. We see this in exchanging the b and the d or 34 and 43 for too long, difficulties with the terms left and right, continuing to spell letters or sloppy reading, bad handwriting and other learning and behavioural difficulties.



Picture 1. A good left/right, up/down and front/back coordination of the body, are prerequisites for an optimal cooperation between the brain and all senses. Standstills in this process can cause learning difficulties.

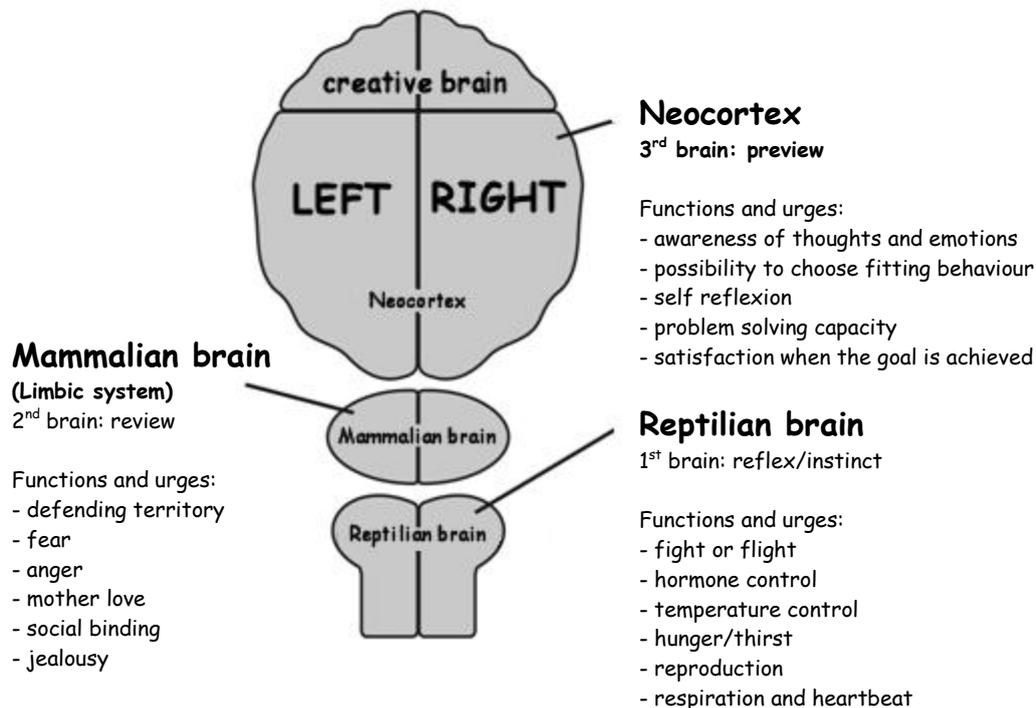
What can the teacher do? Wait until the child *is* ready or keep practising the ‘old’ way, like practicing on paper and on the blackboard, i.e. on a two-dimensional surface?

Not continue on the two-dimensional surface, but **no waiting around** either!

DOs: go back to the natural three-dimensional development, with moving, playing, crawling, somersaulting, balancing, cycling, trampolining, skipping rope, cutting, pasting, doing shape exercises and BRAIN GYM exercises.

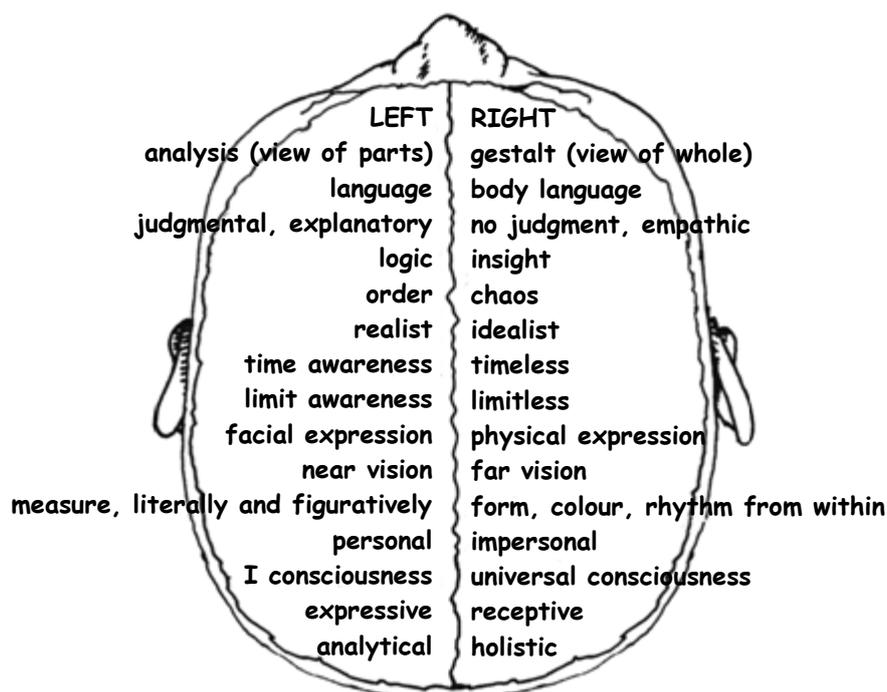
DON'Ts: sit still too much, sit in front of the computer, watch TV, sit in the back seat of the car, sit too much in the car seat or the walker, unhealthy food, too little fresh air, unsafe situations, being bullied, bullying yourself, you name it...

CONCLUSION: children are only **ready to read** when the three-dimensional development has been completed. Only then are they capable of giving meaning to symbols on a two-dimensional surface, symbols that don't mean anything in and of themselves, like letters and numbers. To prevent learning difficulties (dyslexia, dyscalculia, etc.), sufficient play and physical exercise are necessary during the preparatory preschool period. Subsequently, plenty of physical exercise is still necessary to stimulate the different parts of the brain in coordination with the senses, to pick up the subject material.



Picture 2. Schematic representation of the 3 parts of the brain with corresponding functions

The reptilian brain, the limbic system and neocortex are respectively concerned with being able to Focus, Center and Lateralize. There is also a connection with the coordination between the front and back of the body, between the upper and lower part and the left and right. All those qualities in reciprocal coordination between body and brain are necessary for optimal learning performance. Blockages can arise through many forms of stress in the present and in the past, for example through a lack of physical exercise or too much premature pressure on cognitive performance. But also through unhealthy life style and eating habits. First and foremost, a child needs a safe situation, as a basis for optimal development.



LATERALITY Neocortex	CENTERING Mammalian brain (limbic system)	FOCUS Reptilian brain (Brain stem)
Integration: left-right	Integration: up-down	Integration: front-back
Key word: communication	Key word: organisation	Key word: understanding

Middle line exercises	Energy exercises	Extension exercises
<ul style="list-style-type: none"> • Cross-crawl • Lazy 8 • Double Doodles • Alphabet 8 • Elephant • Neck Roll • Rocker • Belly Breathing • Lying Down Bicycle • Energizer • Think of an X 	<ul style="list-style-type: none"> • Drink water • Brain Buttons • Earth Buttons • Balance Buttons • Space Buttons • Energy Yawn • Thinking Cap 	<ul style="list-style-type: none"> • Owl • Arm Activation • Foot Flex • Calf Pump • Gravity Glider • Grounding
	Consolidation exercises <ul style="list-style-type: none"> • Hook-Up • Positive Points 	

Picture 3. 3 different kinds of Brain Gym exercises, like middle line exercises, energy exercises and muscle extension exercises, help resolve blockages. Drinking enough water is important in a physical sense, but also for optimum performance on a cognitive level and other learning areas.

Let's do the following exercises together:

The cross-crawl, Lazy 8, massaging acupuncture points for the eyes and ears, massaging Brain Buttons, Hook-Up.

Furthermore, we'll do a couple of exercises with the CD 'Brain Gym on music'.

The 4 exercises in the 'LEERWIJZER' can be done at the start of the morning or afternoon or in between. They provide a clear head, active hands and feet and help to get you in a good mood and boost your ability to focus.

Elly de Wildt-Dienske