Eye Movement Techniques in Mathematical Teaching.


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Abstract:

It has been shown in neurolinguistic programming that by moving the eye, eye movements can reflect activation of different types of activation by the brain. Eye movements that are made upwards show activation of the occipital lobe which is connected to vision. References of left and right can be in the different hemispheres of intuitive, constructive side, feeling side or into the verbal, logical side. Eyeball movements to the side reflect the temporal lobe and thus auditory. Eyeball movements down reflect activation of the frontal cortex which is where feelings are. In the study good students were evaluated and shown that good students were students that looked upwards, thus activating the occipital lobe and they were able to see mathematical formulas. They were given questions such as: Two numbers added together give you twelve multiplied by each other give you 32; what are the two numbers? And solving the problem that 8 plus four. A and B students would look up and see the formulation, B and C students would look to the side as they would be repeating the question, and the bad students, the D and F students invariably were the ones who looked down, activating the frontal cortex, asking the question: Why is he asking me this question, it's hot in here, or they were exploring feelings. Feelings could not be used to solve a mathematical formula. In our study could we guide our poorer students into better formulation by simply telling them to direct their eyes? A red spot was put at the top of the front of the classroom the size of a basketball. Students who were of the age 10 – 12 at a summer camp at Youngstown were then told to look into the magic spot to find the answers to the questions. In our study we showed that there were dramatic effects that simply by telling them to direct their eyes we could improve mathematical formulations and that the students could be taught to use the proper area of the brain to solve their problems as a reflection of neurolinguistic programming techniques.