

启发儿童智慧的奥秘23

If the "Two-Handed Method" has such absolute advantages, then why is it still uncommon in Taiwan? Tai Chiang Ching says, one hundred percent of teachers in Taiwan use one hand to manipulate abacus beads. It isn't easy for teachers to spare the time to learn a new teaching method. Furthermore, for children who have been practicing with the "One-Handed Method" for over two years, it is difficult to have them switch to the "Two-Handed Method".

"In my class, for instance, some students had transferred from other abacus and mental arithmetic classes and just couldn't adjust to the "Two-Handed Method", so I would switch to the "One-Handed Method". But in the past two, three years, more and more children have been instructed using the "Two-Handed Method". Currently, all my students use the "Two-Handed Method" and the learning effects have been great. Su Wan Ting, for example, was among the first group of students to receive training in the "Two-Handed Method". Her outstanding performances are proof that I'm going in the right direction in terms of promoting the "Two-Handed Method"

The "right brain revolution" of the "Two-Handed Method"

Su Wan Ting's motto:

Laziness is the root of all evil.

Learning is like rowing a boat against the current. If you don't advance yourself, you will be washed away."

We often say "use your brain and hands together" and "nimble hands, ingenious mind." This shows the intimate relationship between the hands and the brain. Complex activities of the hands train periphery nerves and in turn stimulate brain cells, strengthening the cerebrum and preventing degeneration of brain cells, thereby developing brain power.

On the surface, moving abacus beads with both hands increases the depth of visual knowledge of logarithms and related methods of calculation, which produces a stimulating effect when learning math and other subjects.

Essentially, using both hands coordinates children's senses of sight, hearing, touch and their muscles and develops the left brain's calculating and logical thinking functions. Through the linking of the left and right brains, messages are delivered to coordinate the actions of the two hands, in turn stimulating development of the cerebrum, making students think faster, become more focused and have better memories.

The brain power development technology of the "right brain revolution" which has recently been popular in Taiwan proposed that nowadays, most people use the left brain more and consequently are

unable to fully utilize cerebral functions. Research shows that a human's left brain is in charge of language, logic, calculation, memory, sequence, categorization, writing, analysis, etc., or in other words the skills emphasized in the average educational system. On the other hand, the right brain is in charge of instincts, emotions, attitudes, images, colors, spatial feelings, music, tempo, dancing, coordination of bodily movements, integration, creation, etc. An average person's left and right brains do not have frequent communications, and uses mostly the left brain, and rarely the right brain, to think about problems.

In reality, to fully utilize the cerebrum's brain powers, the left and right brains must be trained simultaneously and work together closely. The "Two-Handed Method" utilizes the concept of left and right brains working together to develop brain power in school children.

Speed abacus calculation, or abacus mental calculation refers to the imprinting of the image of an abacus in one's mind and imagining performing calculations on the "invisible" abacus. Generally speaking, the prerequisite to excelling in abacus mental calculation is to master abacus calculation, then go step by step from tangible (abacus) to semi-tangible (chocolate diagrams) to abstract (no tools). Wan Ting also went through these procedures before passing level ten in both abacus and mental arithmetic. She has reached the state of flow in which there is "no abacus in her hands, but in her mind." Like a master of martial arts in martial arts novels, she has perfected the consummate skill of having "no sword in hand, but in mind."

Learning the "Two-Handed Method" and applying it to mental calculation is not bound by time, space, setting, tools or other conditional limits; speed calculation can be performed spontaneously. The construction and changing of the abacus image in the brain effectively develops the right brain's imagination and creativity functions, helpful in training children's attentiveness, composure and memory, as well as enhancing powers of imagination and creativity.