目标32

Epochal revolution: Teaching “Two-handed Abacus Manipulation”

The amazing effect of “Two-handed Abacus Manipulation” is like “integrating” several robots to produce super powers!

Amazing “Two-handed Abacus Manipulation”

In 1990, Tai heard of the unique teaching method of “Two-handed Abacus Manipulation.” He heard that the method is unbeatable and can enhance the skill of “addition, subtraction, multiplication and division” in abacus and mental arithmetic. Thus, he started to study and research the method.

The following year, he heard that Liu Shan-tang, an abacus arithmetic teacher in Jilin, China, had successfully researched “Two-handed Abacus Manipulation” and started to apply the teaching method a decade before. Tai then immediately went to China to explore Liu’s teaching of “Two-handed Abacus Manipulation.” After Tai observed the teaching situation, he found that the method of “Two-handed Abacus Manipulation” had an amazing effect on enhancing children’s calculating skill. Tai was amazed by both the calculating speed and accuracy of the method. Therefore, he started to further research “Two-handed Abacus Manipulation” and improved it in order to make it suitable for Taiwan’s children. Thus, he created the unique teaching method of “Two-handed Abacus Manipulation for CMA Mental Arithmetic.”

The difference between the two methods is that the one in China uses the middle and index fingers of the left hand, and the thumb and index fingers of right hand to manipulate the abacus. On the other hand, the CMA approach uses the thumbs and index fingers of both hands.

Origins of “Two-handed Abacus Manipulation” studies

In the 1980s, many abacus mental arithmetic scholars had already started to study “Two-handed Abacus Manipulation for Speedy Abacus and Mental Calculation.” Liu Shan-tang was the first

one to apply it to teaching and the results were staggering. This kind of teaching method was found to help children to apply their eyes, mouth, hands, brain, pens and abacus alternately. Practicing repeatedly helps students focus on learning and developing willpower, etc. According to the abacus mental arithmetic information collected by the You Ming Publishing Company, a middle school teacher in Jingyu County, China, conducted an observation on a second grader, Mao Dongjie, who was attending an abacus and mental speed calculation test at an experimental school. The teacher found that the girl's ability in memory, concentration and analyses were all significantly enhanced. In addition, after she had learned abacus and mental speed calculation, her performance on the cultural course also improved and she reached top of the class. At that time, there were about 20 provinces, cities, and autonomous regions in China applying the teaching of the "Six Steps of Teaching Method in Abacus Mental Speed Calculation" in kindergarten or elementary schools for a pilot education programme in abacus and mental speed calculation. In 1984, a Japanese tabloid published an article called "The Japan-China Friendship Of Abacus Arithmetic" which indicated that "the features of 'Two-handed Abacus Manipulation', including speed, uses both hands instead of the traditional single-handed approach. Secondly, accuracy is highly improved while using both hands and thinking with both left and right brain since concentration is also highly enhanced."

Under the advocacy of Li Shao-ping, the Director-General of the Taiwan Province of Commerce, "Two-handed Abacus Manipulation" was introduced in Taiwan. The teaching method of "Two-handed Abacus Manipulation," which is known for being unique, was recognised by Taiwan's field of abacus arithmetic, especially the CMA's promotion during their localised teaching. Through the spread of the franchise system, the CMA's method has been promoted in many areas all over the world with a great contribution made to the intelligence development of overseas Chinese citizens and children.

Difficulties faced while promoting it in Taiwan

According to Tai Chiang Ching's estimation, the effect that "Two-handed Abacus Manipulation" has on mental arithmetic is 33.33% faster than using the traditional single-handed method. Indeed, answering questions using abacus mental arithmetic would be faster and more accurate when applying the "Two-handed Abacus Manipulation" approach.