

## 启发儿童智慧的奥秘22

In Taiwan, the "Two-Handed Method" is intentionally neglected, so currently its impact is still small, though in the future it is likely to become a trend.

Before 1983, Jilin province had not done well in national abacus competitions and tournaments. In China's four important competitions, Jilin Province's best achievement was a third place for groups and a second place for individuals in a single category. To strive for better rankings, Chief Secretary of Jilin Province's abacus association, Liou Shan Tang, decided to conduct a comprehensive review and come up with remedies.

In Spring 1983, the abacus association of Jilin Province established the first experimental class in speed abacus calculation in the fourth grade of Zhongnan Elementary School in Bajiazi, Helong, Yanbian Province. Improving the traditional four operations of abacus arithmetic, the new method proved to be effective. Jilin Province won first place five times in a row, from the 1984 national abacus tournament in Guanzhou to the 1993 third national abacus competition in Jinan; and placed first ten times in a row, a new record, in the national minority group abacus competition.

Currently, the speed abacus calculation experiment is performed on over 30,000 students in seven hundred classes in five hundred elementary schools in Jilin Province. During the ten years of experiment, Jilin Province's abacus workers, experts and scholars invented the pioneering "using both hands to stir abacus beads method" and compiled the Jilin-style "six-step method to speed abacus calculation" educational system under the leadership of Liou Shan Tang. Under this advanced educational system, Jilin Province took just five years to cultivate a massive number of child prodigies in abacus and mental arithmetic. According to professional analysts, the level that Jilin Province attained in five years has surpassed levels which Japan and South Korea's abacus arithmetic industries took a century to attain. One could call this a miracle in the history of Chinese technology.

With the success of the experiments in speed abacus calculation and the "Two-Handed Method", Jilin Province has included speed abacus calculation as one of the elementary school activities since Autumn 1994, and is striving to make it an official elementary school subject as soon as possible so that all students can benefit from the method and the whole province's calculating ability can be enhanced. Other provinces in China have followed, and it is predicted that the "Jilin experience" will bring forth an abacus arithmetic cultural revolution for the Chinese.

The revolutionary invention of the "Two-Handed Method"

Su Wan Ting's motto:

the successful person looks for methods. The unsuccessful person looks for excuses.

The three exclusively Chinese methods of calculation, namely oral calculation, written calculation, and abacus calculation have been well established in Chinese society; consequently, many children know abacus calculation. However, with advances in technology, calculators have become common, making abacus calculation very much like piano playing, or in other words, more like a special skill. The common skill used by the general public made its transition into a job skill of the financial and accounting industry, and further minimized its "range of survival" by becoming a "special skill." However, due to the active work of those in the abacus and mental arithmetic industry, abacus and mental arithmetic hold their share among Taiwan's talent classes for children.

What is the "Two-Handed Method"? How is it different from the traditional "One-Handed Method"?

The so-called "Two-Handed Method" is using both hands to perform abacus calculation-- two hands simultaneously moving beads on different rods on the abacus while performing calculations. The pioneer of teaching the "Two-Handed Method" in Taiwan, Tai Chiang Ching says that according to his statistical analysis, using both hands to stir abacus beads and perform mental arithmetic increases accuracy and decreases the number of beadmoving by 30% compared to the traditional "One-Handed Method"; in abacus and mental competitions where time is paramount, the method can have a critical effect on victory.

For instance, it takes twenty-two moves of beads to add "9" ten times with the "One-Handed Method", and even with the simplified "One-Handed Method", it takes nineteen moves. However, with the "Two-Handed Method", it takes just ten times. Adding from one to one hundred takes four hundred and five moves with the "One-Handed Method" and two hundred ninety-three with the simplified "One-Handed Method", but just one hundred ninety-six with the "Two-Handed Method" and one hundred sixty-five with the simplified "Two-Handed Method". From the comparison above, one can see why in recent years contestants using the "Two-Handed Method" have become frequent winners in competitions.