

Re-understanding the Abacus Promoting the Development of Abacus Cause

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Chinese President Jiang Zemin pointed out that we should actively inherit and carry forward the all advanced civilization production of human society. Abacus with long history and longevity is a great invention made by our ancestor and is a gem of great Chinese traditional culture. Within recent years, the mental arithmetic developed on the basis of abacus, has got rapid growing both in national and international level. Chinese Zhusuan Association popularized mental arithmetic from 1991. Since then, the number of people who accept the training of mental arithmetic increases by about 400000 people per year. By the end of the year 2002, there are amount of 3.5 million people attending the training course of mental arithmetic. The strong momentum of studying mental arithmetic is prevailed in many countries such as Japan, Malaysia, Singapore, Indonesia, Thailand, Canada, the United State, Tonga and etc. In South East Asia, the cause of mental arithmetic is in the ascendant. The mental arithmetic not only is popular there but also has been developing to the Australia and Europe step by step.

At nowadays information ages, some people think that abacus should be put in museum due to informatic development. But many rich experiences prove that abacus has the miracle function on education of enlightening brain besides of calculation use. It has magnificent role not only in effectively tapping the children's intelligence letting next generation to be more wisdom, but also in cultivating and training accountants with excellent quality, continuing Chinese traditional culture, as well as transferring and inheriting Chinese broad and deep philosophy thought. Saying abacus as state treasure is not overstated. It is our duty to carry forward the abacus.

Both of abacus and mental arithmetic has close relation with mathematics. The mathematics is a subject difficult to study well since it is of highly abstract character comparing with other subjects. Many countries meet with this problem. In 1996, New Math movement started in the United State by distributing a calculator to each pupil. The result is that the student's calculation ability dropped down obviously. They couldn't chant out the result of simple question. When you ask them what is the result of 8 plus 7, they answer that the result is 7 plus 8. That means that they only know the commutative law of addition but get no knowledge about how to make calculation. Japanese also find that children using computer will lead to fall down their ideation. Long time using computer will disadvantage to foster human's calculative ability and furthermore to result people in relying on machine.

Studying abacus can enhance the human brainpower. Mental arithmetic opens up a supernatural door for developing children's calculative ability. Computer with amazingly quick and shortcut characters will not replace the studies of calculation method and skill. The experiment on introducing mental arithmetic into mathematic teaching has achieved very positive result in some cities or provinces like Shanghai, Heilongjiang, Shandong, Zhejiang, Henan and etc. Shanghai Zhusuan Association implements the strategy of making efforts on abacus and getting effect from math. Under their hard working, the mental arithmetic teaching has been

practiced and studied as the seed project of key task for the ninth five-years planning of science research in the State Education Committee. They invite the experts in abacus and education to give theoretic guidance on compiling teaching materials of primary school that is of combination of abacus and math. Through three years' experiment, the good effect achieved with extraordinary math grade and beneficial of other subjects. The same experiment result is also obtained in Hei-longjiang province. The reason is that putting good gene of abacus into teaching of math and computer can make the study of math much easier.

Abacus, mental arithmetic and computer studies will supplement with each other. Zhusuan has similarity with computer in terms of calculation principle, mechanism and model. Both of them start calculation from multi digit number. Studying abacus and mental arithmetic doesn't mean that no use to learn computer, but helping learning and using computer better. Abacus and mental arithmetic is not only calculation method, but also a good way of thinking, From the point of view of information processing (referring to calculation), abacus and mental arithmetic is close to the human brainpower at most, but on the other hand of gene mechanism, it is near to the computer best of all (for example, written calculation, ruler calculation, table calculation and etc.) Be accustomed to thinking by way of mental arithmetic will be more advantage to creatively tapping and utilizing computer. Therefore, mental arithmetic is a good way for both developing human brainpower and controlling computer easier.

Studying mental arithmetic is conducive to foster and develop the quality of accountant. Within recent years, the cause of abacus and mental arithmetic has been developed rapidly under the great support by some relevant departments. But some problems emerged so that it restricted the development of mental arithmetic cause. The main problem that we met is about understanding of abacus and lack of propagation on abacus should be paid attention by us. Account must be asked to have the qualities earnest, carefulness, speediness and accuracy. The process of learning abacus and mental arithmetic is a kind of effective training way. We should be aware that learning mental arithmetic could help in aspects of tapping intelligence, enhancing ideation smartness, making accurate calculation without using computer, knowing what's what, making prompt decision and adapting to the need of work. Moreover, Zhusuan is quicker than computer in calculation of addition – subtraction and one digit multiplication. If there is unexpected things happened (for example, out of electricity, breakdown of machine), the abacus and mental arithmetic can play its remedial role at once. It is an important example for us that many commercial banks equip their working appliance with computer and abacus at the same time. In addition, some children deeply populated for their quick and accuracy ability by using mental arithmetic were invited to attend the calculation work of levying cereals by grain depot, statistics in Security Company and checking up the examination grade for school and etc. Consequently, we should re-understand abacus and ask accountant to know calculation by both computer and Zhusuan. It is significant for accountant to strengthen their aware of number, to get knowledge of calculation processing, to speed up their calculation, to raise their integration capability and to do good work.

Courtesy: *(The author is Vice President and Secretary – General of Chinese Zhusuan Association, a Research Fellow)*