



Basic Reasons for the Necessity of Zhusuan

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Today, we live in an era of computer. However, it's for this reason that the Zhusuan education becomes more necessary. Not only are Zhusuan skills the basic skills for one's life, but also a life long fortune.

The Zhusuan education must meet the needs of the society, which is now a professional society, in other words, a society, a life ignorant of recording and calculating does not exist. We can understand this point by analyzing the social structure of this professional society.

1. The buying and selling business at the shops and clothing stores, which are the places for basic business activities;
2. Transportation, bank, warehouse and market, which support the buying and selling businesses mentioned above;
3. Agriculture, industry and aquatic products industry;
4. Barber shops and restaurants that provide services;
5. The not-for-profit organizations, such as government agencies, schools, hospitals, etc.

Recording and calculating are almost everywhere in all of the above sectors and shows their necessity. Their absolute necessity can be seen more clearly if they can be reflected on and identified all over again. In addition, in recent years, some simple forms of recording and calculating have gradually found their way into the average households, esp. the life of housewives. Despite the differences between people, no one in today's society can be independent of recording and calculating. They who don't understand this point will be at trouble.

As this paper is on calculating, I only touch issues concerning calculating.

The necessity of calculating is demonstrated by its purpose, which is to ensure, maintain and improve the calculating ability required of each person in the social activities.

To maintain the accuracy and speed of calculating is the basic concept of the calculating ability as well as the starting point and objective. In a natural state, people always keep demanding the improvement of the calculating ability.

In terms of improving the calculating ability and of ensuring and enhancing the accuracy and speed of calculating, the speed can be achieved by repeatedly doing exercises of mathematical calculations. With such repeated exercises, the transcription and calculating of numbers are several times exercises of written calculation. These exercises can help to improve quickly the calculating speed and accuracy.

With the above-mentioned practice, the multiplication table can be easily remembered and some simple exercises of division can also be done. I think that if primary school students all over the world can learn Zhusuan skills, their dislike towards calculation expressed at the math class will be reduced.

Furthermore, if the use of Zhusuan becomes one's habit, it will improve this mental arithmetic ability and some simple calculations with addition, deduction, multiplication and division can be done with the mind, which is also a learner's life – long fortune.

In recent years, researchers of the sciences related Zhusuan education have published many papers on this subject at various meetings. Some believe that in the practice of Zhusuan, esp. that of mental arithmetic, the interaction between the left and right parts of the brain in an instant will cause stimulation that greatly affects the brain. However, this view, while still in its research stage, does not have a clear and definite argument in theory and process.

Nevertheless, my collection of materials has some examples showing that those senior high school students who have reached the highest level in Zhusuan also did the best in overall scores in other course.

Furthermore, in this and coming centuries, East Asia has been attracting worldwide attention as it's on the way to become the center of world economy. Surprisingly, the East Asian countries and regions, i.e. Japan, Korea, China, (including Hong Kong and Taiwan) have always been well in front in Zhusuan education up until now. Though relatively abstract, it is also a somewhat conclusive proof.

In consideration of the above arguments, for the benefits of children of the next century, we need to study the basic reason why Zhusuan education is important to the growth of a child and take Zhusuan into the next country. Therefore, educators of Zhusuan all over the world should have the responsibility and duty to overcome all the obstacles and jointly carry out the research on Zhusuan.

As I said at the beginning, today we live in an era of computer. In Japan almost all the corporations are equipped with computers. Thus, some people think that Zhusuan skills are no longer necessary. However, a director of research department at a Japanese financial institution revealed that a person with Zhusuan skills seldom makes errors in data entry. The reason behind it is quite natural for us. So, we should combine computer with Zhusuan, demanding that a person without Zhusuan skills is not eligible to use computer. My suggestion, though somehow extreme, is tenable. The conclusion we want to reach is that Zhusuan education becomes more necessary for the development of basic abilities of the mankind just because of the computer era.

From the above points, we should insist that the Zhusuan education begin in primary schools so that Zhusuan skills can be grasped more easily.

I believe that Zhusuan skills should be the basic skills of the mankind.