

Construction of New Concept of Symmetric Coordinated Use of Both Hands

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Abstract

Based on the creative education theory, the study of the symmetric coordinated use of both hands is the application of both the quality education ideal and the understanding principles of the creative education to the training of using hands. In the light of relevant concepts of the 'Domain' theory and the expertise of both the Chinese and foreign specialists in this field, this article discusses the relation between the tapping of mental creativity, scientific use of hands and the animation of the right hemisphere of the brain with the aim of constructing a new concept of the symmetric coordinated use of both hands.

Key words : Ergonomics, Use of Both Hands, Symmetric Coordination, Construction of New Concepts

1. Introduction

In the beginning of the 20th century, the father of scientific management F. W. Taylor who aimed to improve the efficiency of loading and unloading at Berliheng factory first mentioned the relation between the labor efficiency and that how a worker used his hands and body. He published his representative work named "The Principle of Scientific Management" in 1911, his follower, Gilbreth, put his words into practice. He started from the famous

laying-bricks experiment and raised 22 items of action economic principle in which there were three of them about scientifically using hands. They were the balance principle; the principle of making full use of hands and the principle of moving symmetrically with two arms in the opposite directions at the same time. From then on, the action economic principle just like Newton's three laws had brought the huge influence to the human civilization and the development of the society. With the coming of the 21st century, the conception of "global village"

has become a household word. Nevertheless, it has showed more important value to link the international in economy, culture, technology, social lives and other aspects. The rules of 90/270/EEC published by UN request that all the indicated devices in offices should be corresponding with the designs of Ergonomics and the Products' Safety. Japanese scholars had also noticed the new trend of science and they developed new products for those left-handers. In China, recently, lots of experts and scholars are devoting themselves to the study of some relevant problems. Such as the ergonomic experts, prof. Che Yiran advanced "the new 33 items of action economy", the academic expert of managing ergonomics, prof. Yang Xuehan advocated that "in the new economy time, the products' designs which link the international. must be responsible for the series of the regulations of ISO9241." Using hands scientifically and the relevant problems in the Domain field are one of the propositions in the science of life. In domestic, it is only ranged in the academic study but not widely available in education. Anymore, it should keep up with the level of international.

Since there is no any other relevant positive study in the country, the extraordinary point of this new conception is to apply the rational thoughts of quality education and creativity education to the

practice of using hands scientifically, and pursue the practicality and fresh ideas. In fact, during the whole manual labor, the efficiency of the left hand can be 100% of the right hand. Both of them have actually no differences about which one being more superior.

2. Using both hands symmetrically aimed at creativity education

Educational cause is the eternal cause of human. The educational workers who devote themselves into the educational cause should continuously aggress and innovate to improve the educational process and push the revolution in education. At present, the quality education and creativity acceleration education have been come the hot issue which are drawing close attention to governments, educational world and all of the people in the country. However, the intention of the quality education is not only to train a kind of ability but to study the root cause that how the ability came into being. Just like an old educationist said: "What we should give students is not a piece of bread, but a shot gun." Thus, when we talk about the quality education, we would not feel vague but supported by full and a create content .When groups of students come into the society, they can be

competent at their jobs. The advance of the new conception with both hands symmetrically and harmoniously working is based on the principle of creativity education.

Today, with the continues leaping for word of human society, the thoughts of Personnel Management has penetrated into the rations aspects of life, study and work. How to improve the quality of life and work? We should coordinate the relationship between men and the generalized environment which could help us to approach the safety, comfort, health and high efficiency during our working, studying living and even traveling enjoy our vacations and having nests. Besides the environmental factor, there is men's factor. The principle of creativity education has mentioned that man had the latent energy to exploit intelligence. Some scholars made a further discussion about how to use brain scientifically and devoted greatly to use the right brain. In truth, both scientifically using brain and using hands do not interfere with one another. Men have two hands and that how to use hands is not only the problem of life habit but it has more scientific meanings. For many years, the people in our country inherited the tradition of history and thought the right hand as the advantaged one since they first got pens to write in infant school and help chopsticks to eat. Some "inborn"

left-handers were even forced time and time to correct themselves until they could write with right hand at least. However reports show that if a man can make full use of his hands to act harmoniously, he can not only work with higher efficiency at usual time but also can react more quickly in unexpected accidents compared with others. This is the objective response of the physiological idea that the left brain and the right brain respectively control the right hand and the left hand. Seeing this, man has no necessary to distinguish which hand is superior. Experts out of the country pointed out: "If man can make full use of the left hand, it at least can reach 80% labor efficiency of the right hand." To train both hands to be used symmetrically and harmoniously at early time would realize "dynamic shaped" which means to train a group of new workers who can use their hands freely and measure up to their tasks with ease.

3 Several examples

3.1 fast hand to write and high score

England Teacher Training Institution made a survey to the 1200 students at the age from 11 to 16 in Oxford Time City. They discovered in the survey that if the studying abilities of students were same, the person whose handwriting was fast could achieve a

high mark. From that we can see that it could be quite different for those students who had the same ability to study but the different speed to write. The fast hand writers got good marks. The result of this survey has showed that the person whose handwriting is slow also has lower abilities in the action harmonization, spelling words, telling the order of letters and other aspects. From this research, we have no difficulty to make such a conclusion: To train the harmonious action of hands can improve the marks of study and the efficiency of work. We can further deduce: To use both hands symmetrically and harmoniously can accelerate the speed of working and improve the efficiency. At the same time it has also trained the right brain, activated the potentiality of intelligence.

3.2 All of the pupils in this class are "left-handers"

In Dongnihe primary school, Lushun district, Dalian City, Miss Jiang Zuoli taught pupils to train their left hands. After more than one year, all of the pupils in the class had become postnatal "left-handers". No matter at doing their homework or examination, the pupils could pick up their pens at random and even could write with both hands, The general scores of the final exam was for front of the whole year. It should be emphasized that the symmetrical

and harmonious use of both hands should begin as early as better. If we push this movement in adults, they perhaps are influenced by "dynamic shaped" which can cause the obstacle to use the left hand.

3.3 The person who first raised the theory of using both hands.

American famous efficiency expert Gilbreth advocated to use both hands in a famous laying-bricks experiment. Which made the speed he increased from original 120 bricks per hour to 350 bricks per hour. From the experiment, he advanced 17 dynamic elements and 22 ideas of action economy. In a Japan-England international exhibition Gilbreth took party in, a Japanese girl was pasting score with fast hands and could reach the speed at 24 boxes in 40 seconds. The girl had gained to applause and surprise of visitors. Only Gilbreth said that she could be more faster. Under the guiding of Gilbreth, she can reach the speed at 24 boxes in 20 seconds. The reason that why a person could do the same work in 20 seconds in stead of original 40 seconds is that she has used her both lands symmetrically .

4. To train both hands symmetrically working & creativity exploitation

What is the meaning of training? If we look up the dictionaries, we can find that the definition is to bring a person to a desired standard of skill efficiency by instruction and practice in a planned way.

Following the model of practice-theory-practice again, the meaning of the new conception to use both hands symmetrically is that the trainers must have those trainees continuously practicing. It is quite different with the traditional conception of "teaching". The meaning of teaching in ancient is "to propagate the truth, to instruct people a skill for job and to solve the problems of them." It is now deduced to teach know ledges and skills to others and answer the knotty problems of students at the same time. However, training is of an obligatory nature and the trainees have no other choices. Nevertheless, in such a forcible and prescriptive training, the trainees can constantly appraise and discipline themselves and finally can reach the goal to be with constant training. Those left-handers in the class of Dongnihe primary school are also come from training.

4.1 Superior art of teaching & creativity exploitation

People always call those doctors whose physicians skill are masterly as superior art of healing. Here we use this phrase to illustrate the outstanding skills of a teacher.

When an excellent teacher is imparting knowledge, he will not step at the point where student should know, but also make them understand "why" and "how". The principal of DUT, Cheng Gengdong, pointed out, when you are reading, you should have a critical mind, thus after asking more why, you could know what you should accept and what you should throw away. The source of exploiting creativity is from the scientific use of brain. It is far insufficient to only know "study hard" and "thinking actively." We also have to know how to think. This is a kind of cognitive ability which those outstanding teachers put at the most important position. Such as reading, the one who is good at using his left brain has a logical thinking, from the beginning to the end the details first and the whole later. However, the person who is used to using his right brain conveys his ideas by means of images: from the end to the beginning; first understands the whole meaning and then details every part. These two kinds of thinking have no superiority to each other. And they in fact complement one another. The reason that why they have differences now is because at present people are used to using left brain and the right brain is remained to be exploited and activated.

4.2 Using both hands symmetrically needs to be trained from early time

Many famous psychologists emphasized; Children have great potential capabilities in which the creativity is one of the most valuable abilities. The key to turn those potential capabilities into reality is to train them in the early time. As one of the particular methods to activate the bright brain and exploit creativity---using both hands symmetrically and harmoniously should be trained since childhood. Otherwise, "dynamic shaped" would bring influence to the training of adults. In reality, the purpose the train both hands is to the brain since creativity will come into being from the brain. The creativity is a sort of psychological quality which is also a complex mixture organically combined by many elements of capabilities. Training of creativity reflect itself. In various fields and there are many kinds of training. To cultivate the mind of creativity has its great meaning both at present and in the future.

5. Conclusion

The civilization of human and the development of the society depend on the education. To use hands and brain scientifically will bring great benefits to the future. Using both hands symmetrically

based on the creativity education is also the tentative conception and we should also push forward the training work. Practice-theory-practice again can make human believe that the left hand is as same as the right hand. The forming of the new conception to use both hands symmetrically will arouse people's mind of using hands scientifically and make the science keep the same pace with human civilization.

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