The Application of Multi-ball Training in Special Quality Training of Women Table Tennis Players

Xiaolong Liang, Zhang Tao

City College of Dongguan University of Technology, Dongguan, 523419, China

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Abstract: In the teaching of table tennis, multi-ball training method is one of the most widely used methods, which plays an important role in strengthening the physical fitness of athletes and improving the tactical level of women's table tennis. Multi-ball training is an assistant means to develop special quality. It can develop the energy metabolism ability needed for table tennis and the basic quality of women's table tennis. Ball training can improve the number of hits per unit time, which is conducive to the formation of technical movements. The multi-ball training method is applied to table tennis teaching by increasing the number of times the athlete swings the shot. To ensure that athletes are familiar with and master basic motor skills for a limited time, the energy metabolism ability required for the special items of women athletes should be developed, and at the same time, the special basic qualities should be developed in combination with special characteristics, and the level of exercise should be improved on this basis.

1. Introduction

Multi-ball training method can enhance the interest of athletes in training, improve the professional level of technical movements, and improve the physical quality of athletes. General physical fitness is not equal to special quality [1]. In the past, general physical fitness training was used to replace special quality training. There are different changes and innovations in techniques and tactics, training methods and table tennis instruments in different periods and stages. Multi-ball training is an assistant means to develop special quality. It can develop the energy metabolism ability and basic quality of table tennis [2]. Physical fitness and special skills are indispensable to the training of any project. They should be complementary and inseparable. Multi-ball training can increase the number of shots per unit time, which is conducive to the formation of technical movements [3]. The multi-ball training method is applied to table tennis teaching by increasing the number of times the athlete swings the shot. To ensure that athletes are familiar with and master basic motor skills for a limited time [4]. In order to improve the teaching level, the coaches should further study the multi-ball training method and find the application method of the multi-ball training method in table tennis teaching and training.

Multi-ball training is an effective training method commonly used in sports such as table tennis, badminton, volleyball and tennis in China. The table tennis game is different from basketball or football [5]. The overall volume of the sphere is small, the impact is extremely flexible, and the number of lost balls is relatively large. Mastering difficult sports skills must be based on good professional quality [6]. A large amount of training time is spent in the process of croquet, which is not conducive to the coherent training of athletes, but also largely spurs the enthusiasm of athletes. As a highly skilled sporting event, table tennis requires athletes to master a variety of normative movements and techniques in order to better cope with the various situations in the sport [7]. It is necessary to develop the energy metabolism ability needed by female athletes, and at the same time to develop the basic qualities of women athletes in accordance with their specific characteristics, so as to improve their sports level [8]. In order to keep the leading position of table tennis in China, it is necessary to study the theory and method of table tennis technical training in depth. Continuously improve the table tennis technology, improve the level of table tennis.

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2. Advantages of Multi-ball Training Method in Table Tennis Training

2.1. Improving professional technical action

In the teaching of table tennis, the application of the multi-ball training method helps the athletes to maintain coherence in the training, avoiding the frequent interruption of the practice caused by losing the ball in the single-ball training. Different levels of table tennis teams use different methods of multi-ball training. The speed and strength of table tennis players are mainly based on energy metabolism, followed by the supply of glycogen, followed by the supply of glycolysis. Most athletes today are afraid of physical training. Especially for technical projects such as table tennis, physical fitness training is more boring than special training, and athletes are even more unwilling to accept [9]. In the training of table tennis multi-ball, the training intensity and density can be flexibly adjusted according to the physical condition of the athlete. Multi-ball training is an indispensable training method in table tennis training, and multi-ball training should be innovated and changed according to the current development trend.

The multi-ball training of table tennis can not only train the players'technical consciousness such as footwork, judgment and batting, but also develop their special qualities. Reasonably arrange the contents of preparatory activities, and link up the general preparatory activities with the special preparatory activities. Make preparatory activities and table tennis special technical action requirements similar to prevent the occurrence of sports accidents in table tennis special training. The structure of table tennis special sports training is shown in Figure 1.

Fig.1. Table tennis special sports training system structure

2.2. Combination of multiple methods

An excellent table tennis player must not only have the ability to continuously fight his muscles and internal organs, but also the nervous system requires excitement for a long time. In the teaching of table tennis, the most basic requirement for athletes is to complete and master the standard movements of table tennis. Since the amount of multi-ball training is relatively large, the intensity and density of training will also increase. It can enable athletes to learn new technical movements as soon as possible, which is conducive to the establishment of dynamic stereotypes. The less the time to discover without rational knowledge, the less likely it is to have the training pursuit to cultivate athletes' ability. The endurance training of table tennis players should also include the content of nervous system. Only in this way can athletes have the energy to use their brains to direct their muscles to complete their movements even in the final stage of the competition. The application of multi-ball training method must follow the principle of gradual progress, from easy to difficult, from slow to fast. The position and route of the ball supply are relatively fixed, so the players can accurately judge the placement and route of the ball supply, which is not conducive to the improvement of the judgement ability of the players.

3. Principles to be followed in the Application of Multi-ball Training Method

During the teaching and training, some professional technical actions of table tennis require long-term fixed-mode exercises to make the muscles form memories and gradually form

professional technical movements. In the development of training methods, it must be based on the level of training and specific conditions of the athletes, as well as the purpose of the training. Targeted selection of training methods, reasonable combination of multi-ball training. In the case of the same total amount, the number of shots per group is small, and the time for high-intensity training can be extended [10]. Artificially create conditions for athletes to cope with long and intense competitions. Due to the individual differences of different athletes, long-term continuous practice is very likely to exceed the athlete's physical load. Let athletes produce negative emotions, affecting the emotional recognition of table tennis. We should pay attention to the combination with the actual situation of table tennis teaching and follow the principle of diversified training. We should give full play to the advantages of the multi-ball training method, and we should not ignore the merits of other training methods.

Table tennis coaches also need to pay attention to the guidance of athletes' fighting skills, effectively improve their individual skills, and reasonably control the density and intensity of tennis practice. The test of lower limb stretching knee and bending knee of table tennis players can be used as one of the indicators of special strength evaluation. Comparisons of muscle contribution rates by different methods are shown in Figure 2.

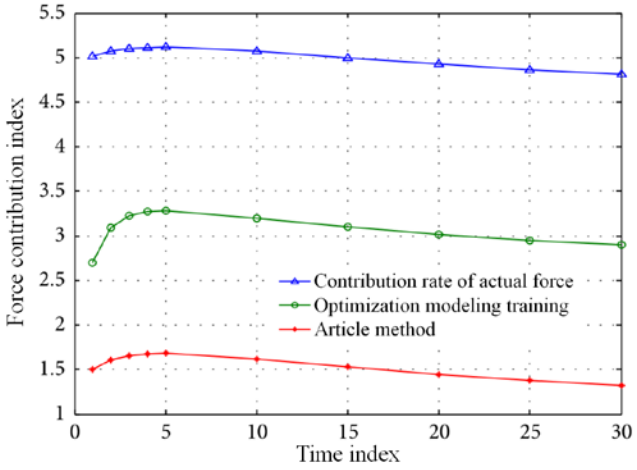

Fig.2. Contributing rate comparison

In the table tennis teaching, the multi-ball training method is applied, so that the athletes should better grasp the essentials of the batting in the continuous batting practice. And constantly adjust and standardize its own actions and postures, and gradually adapt to the increasing amount of training. The time when people are highly excited is limited, so it is very difficult to do it because it remains highly excited for a long time without adjustment. Most of the training is applied to adolescents. When adolescents grow up, their various functions are different from those of adults. So for teenagers' multi-ball training, we should arrange the training time reasonably. In training, if any movement deviation occurs, it will be fixed in continuous training, forming technical deviation that is difficult to correct. Therefore, in the multi-ball training, the quality of practice should be guaranteed.

4. Conclusions

The application of multi-ball training method needs to follow certain rules and adjust flexibly according to athletes' physical fitness and technical level. The multi-ball training method has both advantages and disadvantages, which can not be avoided. If athletes have developed the habit of playing by feeling in training, the more they play by feeling. At the end of the game, it is unlikely that he will use his brain to discover his opponent's weaknesses and then use his brain to control his accurate movements. The conditioned stimulus produced by multi-donor ball is more real than that produced by single-donor ball, so it is conducive to the formation of compound dynamic stereotyping. The proportion of training should be allocated scientifically and the training time should be arranged reasonably. The multi-ball training method can mobilize the learning

enthusiasm of athletes and cultivate the spirit of perseverance of athletes. In college table tennis teaching, teachers need to combine the physical conditions and practice results of athletes at different stages to formulate scientific training strategies and goals, and master the rhythm of practice. With the increasing variety and number of athletes' dynamics, the actual combat ability of athletes is gradually increasing. Coaches should appropriately improve their professional ability and find training methods that can be combined with multi-ball training to better help trainees.

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