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Method of Improving the Level of Technical Training of Qualified Boxers Based on An Integrative Approach

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Abstract: In the theory and practice of sports training of qualified boxers, there is a constant search for ways to improve the effectiveness of competitive activity. Much attention is paid to the development and application of an artificially controlled environment using various boxing equipment and simulators that contribute to the growth of speed-strength indicators, speed of motor reaction, and control of the situation. To improve the level of technical preparedness, sparring and training fights in complicated training conditions have become widespread: against the background of fatigue; with an increase in the duration of rounds; with a wider use of the ring area; with accelerations at the signal of the coach, etc.

Keywords: Boxing, integrative approach, methodology; technical, physical fitness.

Introduction: Competitive activity of a boxer includes offensive and defensive techniques, counter-punching and preparatory actions, various methods of movement, maneuvering, etc. As E.P. Vrublevsky, 2007; V.I. Filimonov, 2007; A.G. Petrov, I.S. Kolesnik, 2009 and others believe, the formation of an individual technique of striking and defensive actions, allowing for targeted, precise blows to painful areas, is the leading condition for achieving high results in the chosen type of sports activity. Analysis of scientific and scientific-methodical literature has shown that in order to solve the problem of increasing the effectiveness of the sports training system of qualified boxers, various modes of motor loads and their combinations are developed with the aim of developing and improving speed-strength qualities; various strength training devices and exercise machines are used, which specialists consider to be of little promise, since they contribute to an increase in muscle strength indicators with a negative impact on the growth of speed qualities [3, 11, 13]. This actualizes the search for new approaches to organizing the training process of qualified boxers, aimed at improving their physical technical preparedness.

The purpose of this work is to provide a theoretical justification for the effectiveness of using an integrative approach to improving the athletic skills of martial artists.

Tasks: 1. Identification of the importance of integrating various areas to improve the sports training system. 2. Development of a methodology for improving technical training and testing its effectiveness during a pedagogical experiment.

Sports training of qualified boxers has a complex content, which is due to the need to solve a complex of various tasks, the effectiveness of the implementation of which is associated with the choice of a system of means, methods, forms of organization of training sessions. A feature of this sport is the probability of performing the same technical technique in different ways. The effectiveness of the performed motor act is significantly increased by the formation of movement extrapolation skills. The use of movement extrapolation skills ensures timely acceleration of the performed technical techniques, rational distribution of muscle efforts, and increases the efficiency of actions.

METHODS

Theoretical analysis and generalization of scientific and methodological literature, testing, pedagogical experiment.

An important component of technical training of qualified boxers is the ability to model the opponent's techniques. This allows you to determine your own program for conducting a fight in a timely manner, predict the opponent's actions and carry out an effective combination in advance [4, 6]. The power and accuracy of a striking action is determined by indicators of muscle strength, speed of motor reaction, body stability, accuracy, agility, flexibility and the manifestation of other motor-coordination qualities [7, 8, 11]. Along with the formation of a variable component of motor skill, extrapolation and modeling of the opponent's motor actions, achieving an optimal level of coordination training for martial artists is also one of the areas of improving sports skills.

The use of these approaches to improve the system of sports training of boxers is based on the implementation of an integrative approach, which ensures the unification of the structural components of a training session to improve efficiency. The result of integrative training is the implementation of the tasks of competitive activity at a specific stage of sports training of qualified boxers. The methodology for improving the sports training of martial artists based on an integrative approach includes means for forming a variable component of motor skill. The results of the research allowed A.A. Novikov, 2000, to theoretically substantiate corrective, compensatory, adaptive and tactical variability depending on the situation arising in the process of interaction between the opposing sides.

The accuracy of perception and assessment of the situation that has arisen during the fight makes it possible to choose the most effective way of carrying out an attacking technique, which allows us to consider this direction of improving the sports training of qualified boxers as promising. The acquisition of various options for carrying out attacking actions creates conditions for choosing the optimal tempo-rhythm parameters of motor actions, taking into account continuously changing situations, which increases the efficiency of managing the process of interaction with the opponent.

The choice of the most effective option for carrying out a striking action is largely determined by the speed of the motor reaction, ensuring the identification of a favorable moment for seizing the initiative, strengthening control of the situation; using effective technical methods, predicting the opponent's actions. The results of studies by A.I. Garakyan, 2007; A.G. Shiryaev, 2007; Sh.R. Zainullin, 2008; I.S. Kolesnik, 2010; A.G. Petrov, 2010; Yu.M. Alexandrov, 2014 and others showed that a decrease in the effectiveness of training and competitive activities of boxers is due to the monotony and insufficient variability of the methods for performing attacking techniques.

The high speed of motor acts in boxing is ensured by the strength and automatism of motor skills, due to which the boxer acquires the ability to carry out effective attacking and defensive techniques. This indicates the relevance of using variability motor skills to improve the level of technical preparedness. The strength and variability of motor skills is due to the coordination of the activity of the working muscles and vegetative organs. Sensory systems inform about changes in the course of a sports match, the start and end time of a technical technique. When the body reaches a new level of functioning as a result of systematic physical activity, the vegetative components of motor activity that provide for it help to strengthen the processes of blood circulation and respiration, mobilizing the deposited blood.

As I.S. Kolesnik believes, 2010, the variability of performing technical techniques improves under the condition of improving motivation and goal setting, the optimal level of development of motor-coordination qualities, and reliance on the general principles of sports training: gradualness and consistency increases maximum muscle load; objective analysis and assessment of one's own movements and actions and those of one's opponent.

To develop skills for the variable execution of technical techniques, it is advisable to use a system of motor tasks:

- by predicting the type of attacking strike action of the opponent, perform a counter-move ahead of time using a series of defensive actions (at least five);
- when the opponent carries out an attack, in accordance with the modeling of his actions by the attacking boxer, evade the blow by ducking, dodging to the right and left, stepping back, and then performing an attacking powerful blow;
- performing a series of striking actions in special zones indicated on sports equipment: punching bag, punching bag, etc.;
- carrying out attacking strikes with a gradual increase in tempo and the use of additional motor actions: rotations, turns, jumping advances;
- accompanying each attacking blow with a set of defensive actions: dodges to the left, to the right, dives, etc.

When maneuvering, the attacking boxer uses the skills of modeling the opponent's striking and defensive actions. Original position, preparatory movements, posture in the situation of a sports fight. The variety of learned preparatory and special actions creates conditions for their creative use, taking into account

the strengths and weaknesses of the opponent, the ratio of height and weight indicators. Identifying the individual characteristics of the opponent makes it possible to use false movements around the ring during maneuvering, which makes it difficult for the opposing side to predict the type, form and method of carrying out an attacking technique; the opponent makes technical errors that allow the attacking boxer to implement a personal program for conducting a fight. Clear maneuvering prevents the opponent from implementing his algorithm for performing technical techniques, reduces self-confidence, and worsens the psycho-emotional state. To develop skills in modeling the opponent's actions during a boxing match, athletes were offered the following motor tasks:

- determine the type of attack technique that the opponent intends to perform based on his fighting stance and the location of his body parts and links;
- to determine the moment of the beginning of the opponent's attack based on the initial position;
- after carrying out an attacking blow, determine the degree of effectiveness of the opponent's defensive techniques;
- determine the characteristics of the tempo and rhythm of his motor actions based on the speed of the opponent's movement around the ring;
- during the fight, carry out at least five single strikes: a straight right to the head with a step forward; a straight far hand to the opponent's head; a straight near hand to the opponent's head; the same with the left hand, simulating the opponent's response to each striking action;
- when maneuvering, take a false preparatory action in order to simulate a counter-action by the opponent.

The content of a boxer's training and competitive activities includes a significant number of offensive and defensive actions, options for moving around the ring, and ways to use distances. Each technical move requires the development of skills for performing the corresponding preparatory actions, the number of which can be reduced by learning extrapolation skills. This creates conditions for learning and using other options for performing technical moves that are structurally similar to the previously learned striking action. The development of extrapolation is facilitated by creating various conditions for performing the previously learned attacking action: by increasing the tempo of motor actions, unexpected for the opponent; using false technical moves that disorient the opponent; using a distance that is inconvenient for the opponent; conducting a training fight simultaneously with two partners with a gradual increase in the tempo of motor actions.

Selection preparatory exercises for mastering the technique of attacking and defensive techniques and their use in the training process contribute to the rational use of the volume of training load. Knowledge of the extrapolation mechanism allows us to identify preparatory actions with the closest structural content and reduce their total number, which ensures the economy of energy expenditure and provides an opportunity to include new methods of attacking and defensive techniques in training sessions.

To test the effectiveness of this method, a pedagogical experiment was conducted with the participation of 32 qualified boxers of the II and I categories aged 17-19. Two groups were organized: control (CG) and experimental (EG), with 16 people in each. Before the start of the pedagogical experiment testing was conducted to determine the level of physical and technical fitness. The following tests were used to determine physical fitness indicators: 30 m run (sec); 100 m run (sec); 3000 m run (min); standing long jump (cm); hanging pull-ups (number of times); shot put (4 kg) (cm); shot put (4 kg) with the right and left hand (cm).

Level technical preparedness is determined by the activity of using the variable component of the motor skill, expanding the range of extrapolation of the motor skill, as well as by the degree of formation of the skill of modeling the motor actions of the opponent. The athlete's use of various methods of performing the same striking action in various situations arising during the interaction of the opposing sides was assessed; the use of extrapolation skills when predicting the motor acts of the opponent; the implementation of skills in modeling the attacking and defensive actions of the opponent.

Evaluation criteria:

5 points – wide use of various striking action options depending on the characteristics of an unexpectedly arising combat situation; use of extrapolation to increase the speed of an attacking technique; modeling of the opponent's movements, allowing one to get ahead of his actions;

4 points – use of skills of variability of technical attacking and defensive actions taking into account the individual characteristics of the opponent; use of extrapolation to increase the effectiveness of one's own actions; active modeling of the algorithm of attacking actions of the opponent by predicting the nature of his motor acts;

3 points – limited use of skills of variability and extrapolation of motor actions, as well as modeling of the opponent's movements in stressful conditions of competitive activity;

2 points – ineffective use of the skills of variability, extrapolation and modeling of the opponent's actions, inability to navigate in the rapidly changing environment of a boxing match;

1 point – insufficient level of development of skills of variability, extrapolation and modeling of the opponent's movements due to low level of physical and technical training.

The technical fitness level was assessed (on a five-point scale) by a group of experts consisting of qualified, experienced coaches. Training sessions in the CG were conducted in accordance with the program of sports training for qualified boxers approved by the Boxing Federation of Uzbekistan. The EG used our own methodology for improving technical fitness based on an integrative approach. After the end of the pedagogical experiment, repeated testing of the physical and technical fitness of boxers in the CG and EG was conducted using the same tests and assessment criteria. Analysis of the results of the pedagogical experiment showed that the testing results improved in both groups: the CG and the EG, with a clear advantage of the EG indicators. In the CG, with initial data in the 30 m run of 5.37±0.16 s, by the end of the pedagogical experiment the results improved to 5.23±0.19 s, ($p>0.05$); In the EG, respectively, with the initial indicators of 5.40±0.20 s, by the end of the pedagogical experiment the results increased to 5.07±0.17 s ($p>0.05$). In the CG, with the initial data in the 3000 run of 14.31±0.52 m, by the end of the pedagogical experiment the results increased to 14.12±0.29 m ($p>0.05$); in the EG, respectively, with the initial data of 14.20±0.36 m, by the end of the pedagogical experiment the indicators improved to 13.78±0.30 m ($p<0.05$). A similar tendency for a more significant improvement in the studied indicators of the EG boxers was also revealed in other tests.

Indicators The technical training indicators changed as follows. In the CG, with the initial data on the application of movement variability skills of 3.1±0.22 points, by the end of the pedagogical experiment the indicators improved to 3.4±0.19 points ($p>0.05$); in the EG, respectively, with the initial data of 3.0±0.17 points by the end of the pedagogical experiment the results improved to 3.9±0.14 ($p<0.05$). In the CG, with the initial data on the development of extrapolation skills of 2.9±0.19 points by the end of the pedagogical experiment the indicators increased to 3.2±0.16 points ($p>0.05$); in the EG, respectively, with the initial data of 3.1±0.17 points by the end of the pedagogical experiment the results increased to 3.9±0.15 points ($p<0.05$). In the CG, with initial data on the development of skills for modeling an opponent's movements of 3.3±0.14 points, by the end of the pedagogical experiment the indicators increased to 3.5±0.17 points ($p>0.05$); in the EG, accordingly, with initial data of 3.2±0.16 points by the end of the pedagogical experiment the results improved to 4.0±0.21 points ($p<0.05$).

CONCLUSION

Thus, the results of the pedagogical experiment showed that the use of an integrative approach in developing a methodology for improving the level of technical training of qualified boxers allows to apply several promising directions of improving the sports skills of martial artists simultaneously. This is facilitated by the variety of means and methods used, the wide use of various motor tasks that activate the creative and motor abilities of athletes, which increases their self-confidence; contributes to the improvement of physical and technical training indicators.

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