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The advantage of forming a volleyball-specific jumping ability in the order corresponding to the technical techniques

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Abstract

Purpose: This article consists of studying the structure of the jumping qualities of volleyball players, the phases of "flight" based on a push-off and landing on one or two legs, landing in the starting position, as well as the results of scientific and theoretical studies aimed at improving the effectiveness of jumping skills, jumping and jumping endurance.

Methods: In the course of the research, such methods as the analysis of scientific and methodological literature, theoretical and comparative analysis, questionnaires, pedagogical observation, conversation, comparison, pedagogical experience, mathematical statistics were widely used.

Results: Strikes from 3 zones are performed by the striker of the first tempo. This reduces the interval and time of running (1-2 steps), walking, jumping and other phases; during the jump, the legs are partially bent at the knee joint, sharply written with explosive force, and the jump phase is performed (during the jump, the amplitude of the sudden movement of the trunk and arms from the back up is small compared to that of the second tempo performer); at the maximum point of the jump, the posterior bend of the trunk and the striking arm is equal to a very small amplitude, but the movement performed for the impact is very sharp inertial-reactive; at the final stage, landing and balancing skills are practiced.

Conlcusion: During the research, visual observation of volleyball training and analysis of scientific and educational literature show that in the practice of preliminary teaching of jumping technical-tactical skills, "jumping-technical method" types, phases, jumping zones, mutual coordination of body, torso, head, legs and hands features are not given deep importance. However, it was found that the coordination of the jump often does not correspond to the purpose and tactics of the technical and tactical reception (throws from different zones, blocking, passing the ball, throwing the ball) at competitions.

Keywords: volleyball, jumping, techniques, jumping skills, jumping endurance, technical and tactical actions, protective zones.

Introduction

In the world, volleyball has a special significance as one of the sports that has become popular and is distinguished by its entertainment. Taking into account the importance of jumping in volleyball, the level of development of technical and tactical actions and physical qualities characteristic of this sport is becoming more and more perfect. Especially in volleyball, the issue of performing combination movements and improving them in order to surpass the opponent is considered relevant. The rapid intensification of competitions at the last Olympic Games and World Championships demands to establish clear norms for the volume and intensity of the load in the organization of the training process, to develop new methods in combination of technical and tactical actions. To cover the topic, the works of leading experts in the field of physical education and sports training, articles and literature were used.

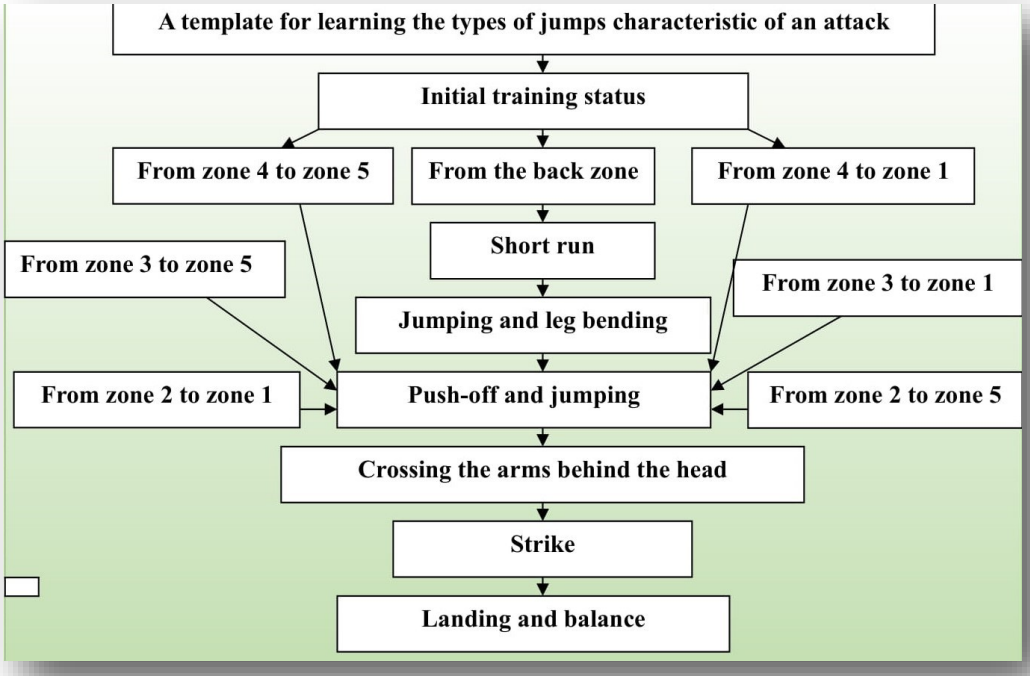
Methods

Jumping is part of vital motor skills and plays an important role in a person's lifestyle. Children's jumping skills are formed during games with different movements. The vital necessity of this skill is explained by the circumstances of eliminating dangerous situations that may arise in an emergency. If the logical essence and practical significance of the jumping skill are interpreted deeper and wider, then jumping is not only a chaotically necessary movement that is performed in a person's life process, military service or emergency situations, but also in a number of sports (sports games, athletics, gymnastics, etc.) is an action skill, which deserves decisive importance. Depending on the nature of the techniques used in each sport in which this qualification is performed by jumping, hatto in one sport, for example in volleyball - impact types, impact zones, obstacle course, ball transfer, ball entry and in accordance with the tactical situation that has arisen in the game differ dramatically in coordination, biomechanical and aerodynamic aspects.

Results and discussion

Jumping skills and jumping endurance have found their solution in many studies as a fundamental factor ensuring the

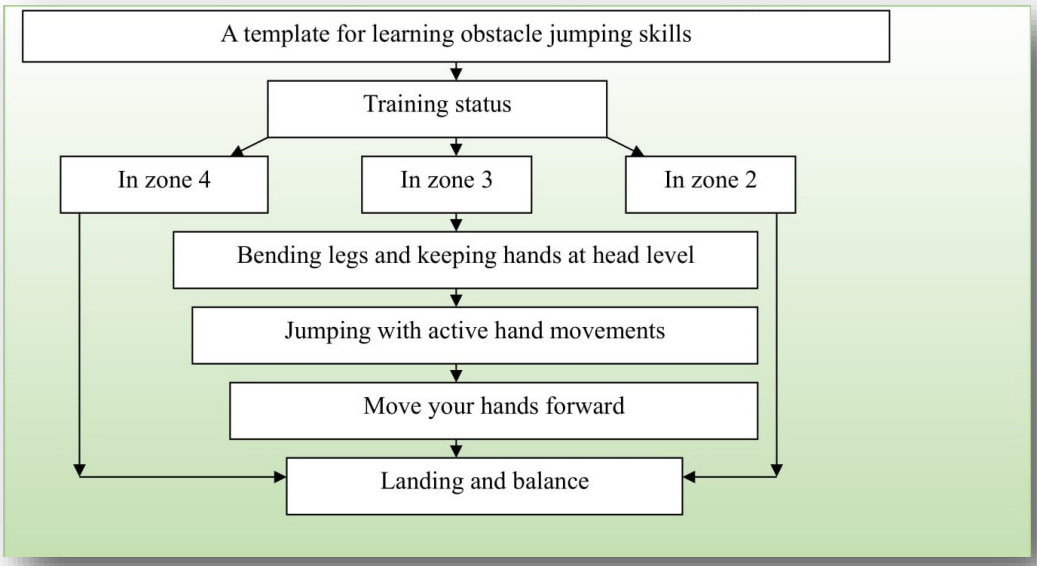
Figure 1. Structure of the anti-doping methodology for the formation of value orientation



effectiveness of most of the game techniques performed in volleyball (strikes, blocking, passing the ball, inserting the ball), methods and tools for their formation are disclosed in the relevant textbooks and manuals. Alternatively, the qualities of this action are practically not studied on the basis of a differentiated approach depending on the nature of the volleyball player's game specialization (amplua), methods of striking, zones, technical and tactical techniques, such as blocking and entering the ball.

Each recorded game qualification (technical and tactical qualification), in turn, consists of several techniques, coordination, biomechanics and aerodynamics of the jump, depending on the execution zone, differ sharply from each other. In particular, when striking from 4 phase zones, aerodynamics and coordination are expressed as follows: the second temporary player takes a position of preliminary preparation around the intersection of the attacking and sidelines; after determining the direction of the ball, high-low, the ball is far-near from the net and antenna, run 2-3 steps, and after 4 steps, landing, the knees are optimally bent, and the center of gravity is lowered down, then, in addition to push-off,

Figure 2. Templates used to teach obstacle jumping skills



jumps (flies), sharply pulling back the trunk and arms up; at the maximum point of the jump, the torso and the kicking arm are partially deflected back, and immediately a blow is struck on the ball, based on their abrupt movement forward

Figure 3. Template used to teach the types of jumps characteristic of passing the ball

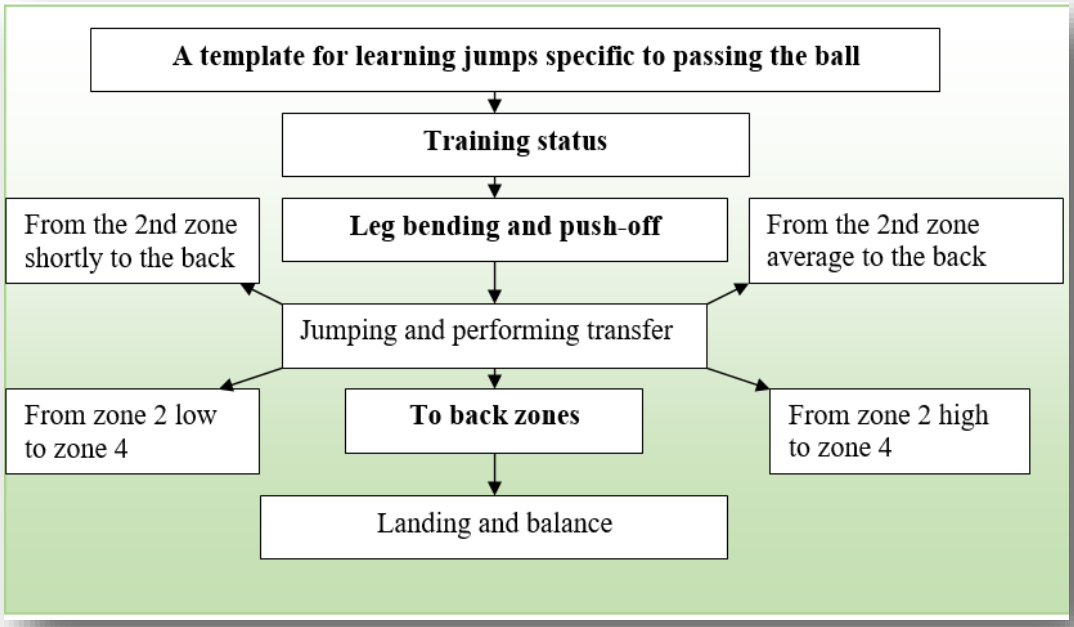
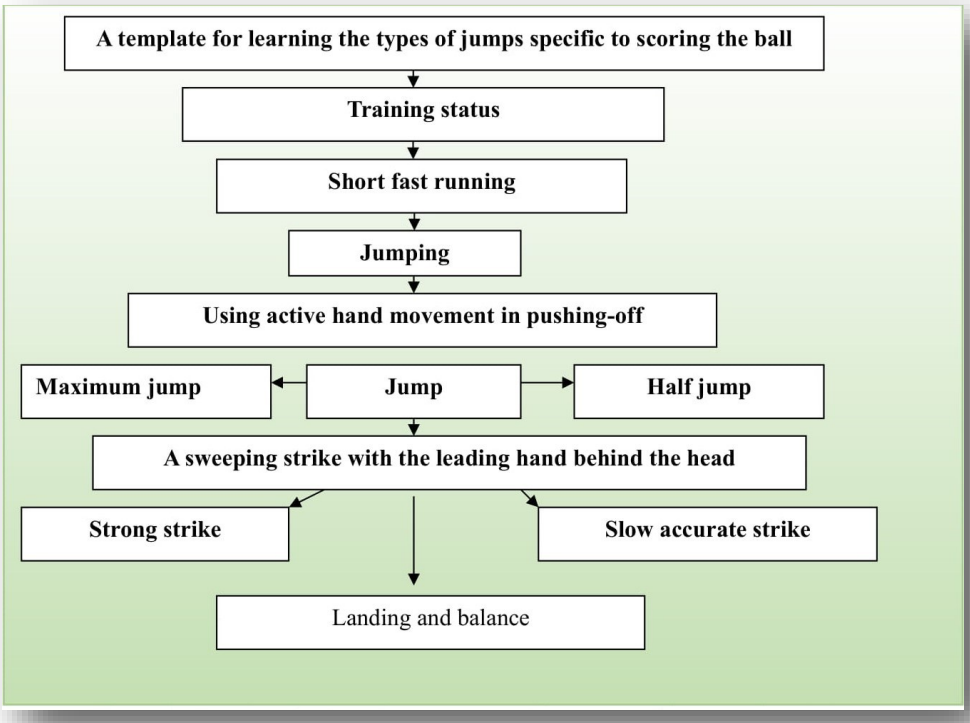


Figure 3. Template for learning the types of jumps specific to scoring the ball



(relative to the ball); the phase after it ends with landing and maintaining balance. Phases and aerodynamic (inertial-reactive) movement of the torso-arms, which are also noted when striking in 2 zones, will be relatively short. The coordination of the movements of the body, torso and arms also changes when the ball, transferred to zones 4, 3 and 2, is beaten off by turning towards the sidelines.

It is known that since 1998, due to a radical change in the rules of the competition, the number of attacking shots from defense zones has increased from 9.6% to 35% (7). Copying such attacks from defensive zones, jumping phases and their coordination content are of a

completely different nature. In particular, when hitting from protective zones, running, crossing, bending the legs at the knees and rapid writing, the bending movements of the trunk, trunk and arms are more intense. The jump is performed not in the vertical direction, but in the dioganal –arcuate direction. Usually the push-off begins behind the line of attack and ends with the landing phase between the middle and the line of attack. Due to the fact that the possibility of repelling attacking shots from defensive zones in a completely new coordinated copy with a group barrier is extremely limited, the effectiveness of such shots increases.

Another noteworthy aspect of the topic under discussion is the aggressive running technique performed with a vertical jump (in zones 2,3) or diagonal-arc (in defense zones), even rapid lateral movements to the right or left to receive the opponent's ball technique (side runs) also to a certain extent consists of elements of jumps and intersections. According to MA Godik, the running technique includes several phases; the athlete first pushes off with one leg (for example, with the left leg), brings one arm (right) forward with partial flexion at the elbow joint, and the other arm (left) swings sharply back, and moves from the base position to the "flight" phase according to the laws aerodynamics (in a non-base position), then lands on the other leg (right leg) and this cycle is repeated the required number of times (5). The greater the explosive force of the legs, the longer the "flight" phase and, consequently, the longer the point of landing and push-off (with the other leg). The faster these phases and the take-off-landing cycle are repeated, the shorter the specified distance can be overcome.

The side running characteristic of volleyball (jumping or crawling on half-bent legs) is performed by jumping or crawling with sharp movements up and down with arms bent at chest level.

When running for a jump, the run-up-push-off-landing phases differ from each other in intervals: the first step is larger, the second is smaller, the third or landing (before the jump phase) depends on the method of impact and the impact zone.

Therefore, even a volleyball player with excellent jumping ability will not have sufficient effectiveness when attacking or blocking. Therefore, in the modern competitive practice of volleyball, especially at the initial stages of preparation, it is necessary to pay attention to the extremely relevant issues discussed above, depending on the type of technical and tactical techniques of jumping and the place (zone) of jumping, coordination, aerodynamics (body, trunk, head and hands) movements) and thereby develop and implement complexes of exercises aimed at developing agility and jumping endurance are of great importance.

Based on this idea, we have developed a number of exercise templates that are used in the process of training jumping skills corresponding to the content of techniques (See figures 1,2,3,4).

Separately, it should be noted that the formation from an early age of jumping techniques, agility and endurance jumps, adapted to the type of technical and tactical skills performed by jumping, and its features, with the help of specialized exercises will lead to a useful result. Jumping phases - the initial preparatory position, running (2-4 steps), jumping and bending the legs at an optimal angle from the knee joint, jumping with active movement of the trunk and arms, jumping ("flight"), moving the attacking arm back and a sharp swing of the attacking blow one of the most important conditions of the training process is that imitation, landing and balance should be practiced in an organic sequence. At the same time, the use of recommended templates in a didactic form makes it possible to form jumping and jumping endurance in accordance with the content of technical techniques.

Conclusion

Based on the results of the study and their comparative analysis, it is worth noting that in the traditional training of volleyball players, the jumping skill is not regularly formed with the help of simulated special exercises. This situation, firstly, indicates that this problem has a very relevant practical significance, and secondly, it helps to develop sets of exercises that can effectively form this ability and determine their effectiveness based on pedagogical experience.

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