

THEORETICAL GROUND OF THE PROGRAM OF INTENTIONAL DEVELOPMENT OF THE PUPILS' COORDINATING ABILITIES USING THE ELEMENTS OF SPORTS GAMES AT PHYSICAL TRAINING LESSONS

Rida Trad/ Mazen Mroueh

Lebanese University, Faculty of Physical Education and Sports

Abstract:

It has been proved that the development of motion activity contributes to improvement of human health level. At the same time, today children spend most of their free time in front of the computer, limiting their motion activity as they do not understand that motion is a natural need of a human body. This study will show the effects of intentional development of coordinating abilities of the pupils during physical training and the criteria of estimation of developing the coordinating abilities.

Keywords: Intentional development, coordination abilities, physical training

Introduction: Sports games with their emotionality and mobility take a leading place among the numerous varieties of physical education means. The feature of sports games lies in the fact that they develop both motion qualities (strength, quickness, stamina, flexibility, coordinating abilities) and personality (independence, initiative, wits). Development of personal qualities assists in effecting the physical processes of children: perception, thinking, attention, memory and cognitive activity as a whole. In addition, sports games promote moral education: respecting a rival, fellowship, honesty in a sport fight [13, 7].

At the same time, complicated performance of the elements of sports games technique, insufficient level of motor function development of most students complicate mastering the playing methods and rationally using them in a two-way game at the necessary level. It causes search for new ways of increasing the efficiency of teaching motion playing activities [1,6,9].

According to Derri, Mertzidou and Tzetzis, specific sport drills enhance the dynamic balance and body coordination [4]. Coordinating abilities take a special place among school children's first qualities. Firstly, high level of their development is the main condition to form the technical elements of game; secondly, the level of developing the coordinating abilities promotes quick adaptation to the constantly changing conditions, and also helps apply the most effective methods of game [10, 12].

Concerning the structure of the applied coordinating exercises, the perception and analysis of pupils' own motions, the dynamic, spatial and temporal descriptions of pupils' motions, and the comprehension of specific motion performing should be focused on [2,6, 7].

Thus, the topicality of the study is conditioned by the prevailing solving of the tasks of developing schoolchildren's coordinating abilities in the process of teaching the technique of sports games at the physical training lessons and by the lack of information and materials on their development among the available research and methodical literature.

Objective, tasks, material and methods of development:

Objective of the study: forming the elements of sports game technique for the secondary school pupils at the physical training lessons by developing the coordinating abilities.

Tasks of the study:

1. Conducting the analysis of research and methodical literature on effect of the level of coordinating abilities on forming the elements of sports game technique.
2. Elaborating the program of intentional development of coordinating abilities of school pupils at the physical training lessons.

Research methods: analysis and generalization of research and methodical literature.

Results of the study: Development of coordinating abilities should be regarded as a principal way in mastering the skills of sports games. [15,3]

The study showed the expediency of developing coordinating abilities in close interconnection with sport technical and tactical perfection. Such approach has been implemented in a number of experimental studies showing the positive influence of developing coordinating abilities level on the quickness and quality of teaching difficult moves [1,10, 6, 7].

In the works[3,7], it has been experimentally proved that using of exercises showing the ability of reproducing and differentiation of spatio-temporal and dynamic parameters of motions assists the effective teaching of motions for junior and middle school age at the physical training lessons.

Coordination abilities and age are linked together through a linear relationship. [8] According to the findings [9], coordinating abilities are quickly developed at junior and middle school age. Motion skills are easily formed during this period.

The studies of P. Hirte (1995) showed that considerably better results in forming of motion skills were obtained in the test group than in the control group for within the same period. It is also confirmed in the studies (Liakh, 2006).

Based on the reference data, the necessity to elaborate a program of intentional development of coordinating abilities during teaching the elements of sports game technique for schoolchildren at the physical training lessons has been ascertained. The works [1,2 ,12] have been the theoretical basis of the program.

Experimental studies on basketball players [16] and volleyball players [5] show the significance of coordination training. The program of intentional development of coordinating abilities is based on the special tasks on teaching the basket-ball and the volley-ball techniques included into basic part of lesson, each 15 minutes long. Up to 6 special exercises repeated 6-8 times have been included in every lesson.

During implementation of the program of intentional development of coordinating abilities, a special attention was paid to the implementation of two basic tasks: first – developing coordinating abilities is conducted in close interconnection with technical and tactical preparation; second- harmonic combination of developing coordinating abilities and physical qualities (strength, quickness, stamina, flexibility).

The principal provision in the program of developing coordinating abilities is the systematic and successive teaching new versatile motions and thus formation of more complicated forms of motion coordination. The logical selection of supporting exercises provides quicker mastering and fixing of motion skills and provides the development of coordinating abilities [2, 12].

Supporting exercises should meet the requirements as follows:

- They should make performing coordinating exercises easier;
- They should contribute to correct, rapid, rational performance of coordinating actions;
- They should be characterized by novelty and variety.

In accordance with the materials of the study[14], all the exercises for mastering of volleyball and basketball have been divided into two groups:

- general coordination exercises;

- exercises developing the coordination of motions within the technical method of game.

The exercises were performed with and without objects to improve the ability of estimating the spatial-temporal and dynamic parameters of motions. Intentional performance of 4-6 such exercises of method and word should be performed without previous showing to improve such a process. It stimulates children to think over first and take a certain initial position never taken before independently before performing the exercise. The exercises with throwing the ball for a set distance and for accuracy were also used. Jumps for a set distance and for accuracy were also used. Jumps for a set distance and with the set speed and frequency were used.

The second group consists of the exercises as follows: passing the ball, catching and passing the ball in volley-ball, passing and throwing the ball into the basket in basketball which is performed from different distances involving sight with the purpose of accenting the functions of the sensory systems.

For improving the ability of orientation in space, the first group includes such exercises as running for distances, movable games, and relay races with different objects (skipping rope, hoop, padded ball, tennis balls, basket-ball balls, and gymnastic sticks).

The second group includes exercises focused on teaching and mastering the elements of game technique and tactical skills of conducting a game.

During improving the ability of perception, coordination and processing of motive actions, different exercises of movable and sports games, marital arts were used. The exercises which develop intellectual and sensomotor processes and assisting education of such volitional qualities as courage, decision, and initiative were used as additional funds of developing these abilities.

The exercises requiring the choice of reacting depending on the character of external signal were used to improve the sensomotor response time. For, movable and sports games were used to train response to moving object and exercise with forecasting the direction and speed of ball flight.

The complex methodical techniques was subdivided into two groups:

1. Change of exercises performance method: directions of motion, power, efforts, rate of motions, rhythm of motions, initial and final position, mirror performance exercises.
2. Change of motion performance conditions: permanent change of initial positions, preliminary load, preliminary irritation of vestibular, additional tasks during the performance of exercises, different combinations of motions.

Different practical methods were used to develop the coordinating abilities: integral method, method of dismemberment. During mastering the exercises as a whole and in parts, the method of supporting exercises was used. The structure of such exercises marches the general structure of motions or its separate elements.

By the recommendations [11, 6], the method of repeated exercises was used at the physical training lessons with the pupils of experimental class during development of coordinating abilities. This method was applied for the gradual increase of load intensity or duration of performance of certain exercise. This method was used when the students were mastering the technique of motions, and the level of coordinating abilities reached a necessary position. The method of regressing exercise was used during performance of exercises with high intensity at the beginning of the lesson and with a gradual decline at the end. It will help avoid overstrain and breach of motion technique.

During the implementation of the program of developing coordinating abilities of the pupils, playing and competitive methods should be especially focused on. Applying these methods affects the emotional state and complex perception of the motions.

At the physical training lessons, the games have changed and have gradually become more complicated. Three to five movable games or relay races depending on the aim of a lesson were played at a lesson. To improve coordinating abilities, competitions and games were conducted in simplified and complicated conditions.

Simplified conditions: reduction of games duration, performance of technical elements in the simplified conditions, using the facilitated implements.

Complicated conditions: sports and movable games at the smaller grounds and with more players.

Conclusions:

1. The intentional development of coordinating abilities of the pupils during physical training assists to accelerate considerably formation of the elements of sports game technique.
2. The most informing criteria of estimation of developing the coordinating abilities are the indexes of reproducing the spatial- temporal and power parameters of motions, as well as the spatial orientation and coordination of motions.

References:

1. I.V. Averianov. ; Theoretical and Experimental Motivation of the Program for Improving the Kinetic Coordination Abilities in Football Players of b10-11 Ages; Omsk Scientific Bulletin; Publisher of the Omsk State Technical University. No: 3(55). 2007. Pp. 117-120
2. N.A. Bershtain, About dexterity and methods of its development/ exploitation. Moscow. Physical Education and Sport, 1991. P.288
3. M. V. Denisov, Conjugation method as a factor contributing to the optimization of processes, improved elements of volleyball technique; Theory and Practice of Physical Culture NBo. 4, 2007. Pp. 40-42.
4. Derri, V., Mertzaniidou, O., & Tzetzis, G. Assessment of dynamic balance and body coordination in female athletes of rhythmic and gymnastics, 9 – 15 years old. Exercise and Society, (2000), 55-62.
5. Gierczuk, D. Coordination Training as a Factor Streamlining of the Goal-Oriented and Special Stage during the Schooling of Wrestlers (Ph. D. Thesis)]. AWF, Kraków. (2004).
6. Yu. Glezenyak, Sports Games: Technique Tactics, Training Methods: Educational Book, 2nd Edition, Moscow, Academy, 2004. P.520
7. Hirtz P. U. A. Koordinative Fähigkeitigkeit im Schulsport (Coordinative Ability in School Sports) Berlin, Volk and Wissen, 1995. 250
8. . Kambas, A., Fatouros, J., Aggelousis, N., Gourgoulis, V., & Taxildaris, K. Effect of age and sex on the coordination abilities in childhood. Inquiries in Sport & Physical Education, (2003)., 152 – 158
9. Ljach W. Place of General and Special Preparation Coordination in Sports Training of Children and Youth, The Current Issue of Sport for Children and Young People. Scientific materials. Institute of Sport. Warsaw, 1995. P: 166-170
10. V.I. Laykh, Coordination Abilities: Diagnosis and Development, Moscow, Division, 2006. Pp, 132-134.
11. V. P. Ozerov, Human's Psychomotor Ability, Dubna, Phoenix, 2002. P.320
12. V.N. Platonov, Coordination of the sportsman and the Method of its Perfection [teaching manual], Kiev State Institute of Physical Culture, 1992, p.54
13. V. V. Romanenko; Correlation of the Technique and Physical fitness of Young Taekwondo Players, Schoolzhansk Scientific Sports Bulletin: Collection of Scientific Works, Kharkov State Academy of Physical Culture, Kharkov, No 3, 2009. Pp. 72-78
14. E. Sadovsky, The Directed Variations of Structure of Coordination Capacities of Sportsmen in Martial Arts, Collection of Scientific Works, 2000 – Moscow, All Russia scientific research institute of physical education, 2001, pp. 332-338
15. L.V. Volkov, Theory and Methods of Children's and Youth Sports, Olympic Literature. Kiev, 2002. P.293
16. . Zwierko, T., Lesiakowski, P., & Florkiewick, B. Selected aspects of motor coordination in young basketball players. Human Movement Science, (2005), 124-128