

**DEVELOPMENT OF COORDINATION ABILITIES OF YOUNG
BADMINTON PLAYERS BY MEANS OF THE INTERNATIONAL
PROGRAMME BWF SHUTTLE TIME**

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Abstract. The publication reveals the peculiarities of the development of coordination abilities of young badminton players aged 8-9 years by means of the international programme BWF "Shuttle time".

Keywords: badminton, coordination abilities, training.

Introduction. Training in badminton is a complex multifaceted process. All muscles of the body are trained equally well, constant jumps, movements, lunges, turns and shuttlecocks allow to get a significant physical load.

Badminton is the right upbringing, it is one of the few sports where men and women play together, understanding the team and equality will be the key to proper gender education [2, 7, 8, 9].

However, the result in badminton depends most of all on the development of coordination abilities, which prompted us to consider in more detail the peculiarities of their development in young badminton players [3, 4, 5, 6].

The analysis of the scientific and methodical literature available to us revealed that the effectiveness of competitive activity in game sports carried out in conditions of direct confrontation with an active opponent is largely conditioned by the level of development of coordination abilities of sportsmen [3, 4, 5, 6].

Features of badminton, as a kind of sports activity, impose high requirements to properties of attention of a sportsman, and a small weight of a shuttlecock requires high accuracy of differentiated thin muscular efforts [3, 4, 5, 6].

The majority of researchers [1, 3, 6] believe that the development of different types of coordination abilities at the initial stages of sports training helps young athletes to learn to control their motor actions, achieve a high level of technical and tactical skills and show high competitive results in the future.

The issues of development of coordination abilities are considered in the scientific and methodological literature in a rather deep and comprehensive manner. The essence and content of the concepts of "coordination abilities" and "agility" are analysed in works [3, 4, 5, 6].

Unfortunately, we did not find any literary sources on training badminton players in Ukrainian, so we had to rely on foreign sources of information in our research.

Relationship of the work with scientific programmes, plans, topics. The research is carried out in accordance with the scientific topic "Theory and practice of training future primary school teachers for work in physical education at school" State registration number of the research work: 01191U100969.

The purpose of our study was to develop and scientifically substantiate the methodology for developing coordination abilities at the stage of initial training of young badminton players through the BWF international programme "Shuttle time". We set ourselves the following **tasks**:

1. To study in the available scientific and methodical literature the types of coordination abilities, significant for the efficiency of competitive activity in badminton.
2. To investigate features of development of general and specific coordination abilities of badminton players at the age from 8 to 9 years old.
3. To develop and to prove a methodology of development of coordination abilities of young badminton players at the stage of initial preparation by means of the international programme BWF "Shuttle time".

Material and methods of the research. For the experimental substantiation of efficiency of the application of the developed by us methodology of development of coordination abilities by means of the international programme BWF "Shuttle time" [9] in badminton players of 8-9 years old in the educational and training process at the

stage of initial preparation the formative pedagogical experiment was conducted. The experiment was conducted for 6 months (October 2022 – April 2023) and included 60 educational and training sessions. The experiment involved children aged 8-9 years, students of initial training groups (first year of study).

Two groups were formed - an experimental group (EG), which included 13 girls and 14 boys, and a control group (CG) – 14 boys and 14 girls.

The development of coordination abilities was carried out 3 times a week: in the preparatory, main and final part of the badminton training session. To solve this task, 20-25 minutes of the whole lesson were allocated (the total duration of the lesson was 90 minutes). The training took place at the secondary school No. 10 in Ternopil. Two groups were formed: the experimental group (EG), which included 13 girls and 14 boys, and the control group (CG), which included 14 boys and 14 girls. The experiment was conducted for 6 months (October 2018 – May 2019) and included 60 training sessions. The experiment involved children aged 8-9 years old, students of initial training groups (first year of study).

Results of the research and their discussion. In our research for the development of coordination abilities we used physical exercises aimed at the development of certain types of coordination abilities, leading and special exercises aimed at teaching technical and tactical techniques of badminton, mobile games and relay races with an emphasis on the development of coordination abilities.

The preparatory and main parts of each lesson included exercises to develop the coordination of fine finger and hand movements. Moving games and relay races were used at the end of the main part of the training session. In the final part of the lesson, sets of exercises were used to develop flexibility.

To develop the reacting ability, tasks for the development of simple and complex reactions were used. For development of a simple reaction such exercises as change of direction of movement on a signal, acceleration or deceleration of a pace, etc. were used, for development of a complex reaction: on one signal – stop, on another signal – change of direction of movement, etc.

To develop the ability to reproduce spatial, temporal and power parameters of movements, the following exercises were used: exercises with throwing the ball at the target and at a given distance; jumps at a given distance; turns at a given number of degrees; special exercises with a shuttlecock. Objects of different weight and shape were used. The exercises were performed both with and without visual control.

Special tasks were used to develop the orientation ability: change of positions of arms, legs and body in space (to the sides, upwards, angular characteristics – 45 degrees, 60 degrees); change of plane and direction of movements by a signal (visual, auditory); exercises in pairs; throwing the ball at the target from different starting positions; performing exercises without visual control.

To develop the ability to maintain balance, the following exercises were used: in cooperation with a partner – jumping from different starting positions (in a crouch, grip under the elbows, facing each other, back to each other, standing on a gymnastic bench) in different directions; walking on a gymnastic bench, with side steps, sideways, on toes, backwards; holding a pose in unstable starting positions (on one leg) and others.

When gripping a racket, different blows on a flounce, positions of a racket (open, closed side of a racket), subtle movements of fingers, hands, and also coherence, coordination of these movements are of great importance in badminton. For the development of coordination of movement of hands exercises which promote the formation of fine movements of fingers, formation of movements and strengthening of muscles of hands were used.

Special attention was paid to exercises to develop flexibility. In badminton, without sufficient flexibility, it is difficult to "get" the shuttlecock far over the head with a "candle", a high-flash (to receive an opponent's shot); it is impossible to make a wide lunge when doing a stand or spin, and so on.

For both the preparatory and special exercises, we used exercises for the muscles of the hand and fingers, including those with a racket, juggling a half-inflated balloon, and juggling a shuttlecock with the open and closed sides of the racket.

Exercise "juggling with a shuttlecock". The following ways of performing the exercise are possible: with the racket open, closed, alternately, in the lunge position, in

a crouch, throwing the shuttlecock to different heights, after every fourth stroke, make a 360-degree turn. This exercise should be used to develop the ability to navigate in space and react.

Hit the ball on the floor and catch it, then sit down, throw the ball up, splash, catch it, perform a 360-degree turn. This exercise should be used to improve the ability to react, the ability to switch motor actions.

Jumping on two legs over a rope with alternate crossing of arms. As you master the exercise, perform it with your eyes closed. This exercise should be used to develop the reaction of movements, orientation in space, attention.

Exercise "Hit the target with a shuttlecock". Using a racket and a shuttlecock (short serve technique), try to hit a horizontal target (hoop, box) located at a distance of 3 m. The same, but the target is located at a distance of 6 m. The exercise should be used to improve the reacting ability, the ability to differentiate force and amplitude of movement.

The results of the study revealed a positive impact of the developed methodology on the development of children's coordination abilities: high rates of growth of general coordination abilities in EG were found in the ability to maintain balance (51%), medium (16%-29%) – in the ability to orientate in space, to react and to kinesthetic differentiation.

High rates of growth (111%) of specific coordination abilities in the EG were found in the ability to react, medium (23%-37%) – in the ability to kinesthetic differentiation, to maintain balance and to orientation in space.

During the experiment, positive changes also occurred in the control group: average growth rates of general coordination abilities in the CG were found in the ability to static and dynamic balance – 25%, low (5%-13%) – in the reaction ability, kinesthetic differentiation and spatial orientation.

High rates of growth of specific coordination abilities in CG were found in the reacting ability (105%), medium – in the ability to differentiate muscle tension (26%), low (8%-14%) – in the ability to orientate in space and to maintain dynamic balance.

Conclusions from this research. Summarising the results of the experiment, it can be concluded that the application of the methodology developed by us leads to an increase in the pace of development of coordination abilities of young badminton players.

Prospects for further research in this area. To investigate and scientifically substantiate the methodology of development of coordination abilities at different stages of preparation of badminton players for competitive activity.

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