

# Application of Game-Playing Exercises in the Training Process of Young Sambo Wrestlers

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**Abstract:** *An athlete of any age, qualification and sport needs versatile physical training to achieve good results. The training process can be aimed not only at increasing the volume and intensity of the load, but also at optimizing the technique itself: clarification of known and search for new ways of training [1]-[3]. The most effective and affordable means of training in various sports is the game method of training. Fatigue and disruption of attention span are caused by high tempo or monotonous nature of training. Introduction of outdoor games and game-playing exercises in the activity increases attention and helps to restore health [4]-[6]. The paper proves that the development of technical and tactical actions, as well as of physical qualities, is directly dependent on the enthusiasm of an athlete, their positive emotional background. The inclusion of game-playing exercises in specialized training contributes to the creation of athletes' positive emotions.*

**Index Terms:** *Game method of training, training process, young sambo wrestlers*

## I. INTRODUCTION

Modern sport places high demands on the physical and psychological qualities of a person. In the course of training of athletes who chose wrestling as their specialization, the development and improvement of qualities necessary for a wrestler, proceeds with the maximum intensity [7]-[10]. Watching an athlete for only one year of training, one can see how their muscles develop, the movements become more flexible and confident as they get stronger. To successfully perform technical and tactical actions, a wrestler must be strong, agile, fast, flexible, and, consequently, constantly improve these qualities. The wrestling itself is a good means of improving motor skills, but maximization of all qualities of the motor potential of wrestlers is only possible through targeted use of special means and methods [8], [11]. The

means of training presented in the form of a game are of great interest to competing athletes. The game encourages the formation and development of their abilities, allows realizing the desire to compete in agility, courage, helps to overcome the feeling of fear and uncertainty.

Skillful application of games in the process of training allows keeping interest in them throughout the training cycle. Active games increase the mood and performance of athletes. Therefore, we believe that the application of game-playing techniques in the training process of wrestlers at the age of 12 to 14 years old at the stage of sports specialization will not only increase interest in the training, but also help the development of complex technical and tactical combinations. It will give an opportunity to an athlete to reveal all their potential, to understand their strong and weak points. The game method features very extensive goals and objectives. For athletes of young and middle age groups, it is the most suitable method. With its help, the level of training of all body systems is increased. The application of the game form for the study of tactical elements and technical actions is preferred for the group of early specialization. The development of skills, increased interest in the chosen sport and improvement of the motivation of athletes to motor activity can be observed. The game method is a tool of integrated improvement of physiological qualities. No active game can develop any quality in isolation from others. So, games with power wrestling elements, as a rule, develop endurance and agility. In tug-of-war games, with a focus on the development of power qualities, an athlete needs qualities such as coordination (high-speed movement on the carpet, keeping balance), strength endurance [4]-[6], [12], [13].

In addition, an important method of psychological training is represented by psycho-technical games. A psycho-technical game, as a method of psychological training, involves creativity, self-knowledge and communication. Every psycho-technical game is a little competition. The only right solution does not exist – every time one needs to look for their own solution to the problem. The ability to perform well in competitions is the ability to improvise. It is necessary to discard all thought-out options, to use serendipity. A young, still inexperienced athlete interferes with this fear, the fear of the unknown. Psycho-technical games are designed to correct this situation. For this reason, it is so important to introduce this method in the training process of young wrestlers.

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The use of psycho-technical games applied in the training process of young sambo wrestlers allows them to gain invaluable experience of the spontaneity of decisions, instills in them the ability to respond to the rival's action without training. It is known that the psychological climate in the sports team can have both negative and positive impact on the training process, competitive activity [14]. In connection with this fact, the use of psycho-technical games in the sports team can affect the performance of wrestlers in training and the results of the competition.

Based on the literature we have studied, we can say that the training process is a set of all types of training. The physical training of a wrestler promotes the formation of a muscular frame, strengthens the bones, makes an athlete resilient to stress. However, an excessive increase in loads can lead to fatigue and overtraining of a body, so the training process should include psychological training, it helps to overcome fear, allows overcoming self-doubt, helps to overcome negative emotions. Psychological and technical-tactical training are interconnected. For successful performance of tactical tasks and technical actions, an athlete needs to control their emotional state. In the study of techniques, it is necessary to adjust an athlete to a sharp change in the intensity of exercises. At the stage of sports specialization, the application of game-playing exercises will contribute to the integral development of an athlete. Games help to master complicated technical combinations, stabilize the emotional state, allow a wrestler to show their personal qualities. During the game, the following physical qualities are developed: speed, strength, endurance, agility.

### II. MATERIALS AND METHODS

We have conducted the following research in order to substantiate the application of game-playing exercises in the training process of young sambo wrestlers: the competitive activity of highly-skilled wrestlers has been studied; the survey of experts on problems of technical and tactical training of sambo wrestlers has been carried out, pedagogical supervision and the analysis of various wrestlers' conditions have been carried out directly at competitions and also based on video materials of serious competitions of the year. The technique of training for sambo wrestlers at the age of 12 to 14 was developed considering the recommendations given by G.S. Tumanyan [3]. The verification of the developed technique effectiveness has been carried out according to the results of participation of the sambo wrestlers of the experimental and control group in the control trials. Sixteen qualified sambo wrestlers (I sports category) have participated in the pedagogical experiment: the control and the experimental groups each included eight athletes at the age of 12 to 14 years in weight categories from 52 to 68 kilograms.

On the basis of the identified effective combinations, the sets of game-playing exercises were selected and tested to improve the technique of performing basic combinations (wrestling for body press, destruction of balance, throw). In the training process, these sets of situational tasks are divided into technical techniques and coordination techniques.

The purpose of the game-playing exercise application

technique is to improve the sports skills of young sambo wrestlers. The following tasks are set: selection and development of a set of game-playing exercises for wrestlers at the age of 12 to 14 years; increase in the level of implementation of technical, tactical and coordination actions. The following means were selected: sets of game-playing exercises aimed at the development of coordination abilities: game-playing exercise "Hapsagay", game-playing exercise "Combine a Throw", game-playing exercise "Perfect Throw"; sets of game-playing exercises related to the improvement of the technical, tactical actions, game-playing exercise "Before the First Throw", game-playing exercise "Favorite technique", and game-playing exercise "Hip Throw". The following methods have been applied: game, competitive.

### III. RESULTS AND DISCUSSION

The analysis of publications [9], [10], [12] showed that a number of priority attacking actions of wrestlers includes basic body presses, as well as convenient locations for a subsequent throw. Therefore, it is important to teach and instill in athletes the correct technique of throws, for further improvement and acquisition of favorite techniques that will expand the potential of motor skills, as well as their application during the competition. Our technique allowed teaching young athletes to correctly perform technical actions in an accessible, playful way, as well as to reveal their potential in the relaxed atmosphere of game fights.

After analyzing the competitive fights of sambo wrestlers of high qualification, we concluded that the high performance in games is achieved by the combination of the supply and main actions: mutual arrangement of wrestlers, distance feeling, control options for capture, counterattacking actions, combinations of throws and receptions, and many other factors. Results of effective actions of sambo wrestlers of high qualification are presented in Table I. Based on this, as the basis of our methodology, we used a set of game-playing exercises aimed at improving the coordination and technical and tactical actions.

**Table I.** Average indicators of effective actions of highly qualified sambo wrestlers (on a 10-point scale)

№	Indicators of effective attacking actions	Point
1	Quick intelligence and deception activities	9.6
2	Comfortable body press options with the result	7.3
3	Comfortable grape vines options in the standing position with the result	7.6
4	Comfortable body press options with the result	8.3
5	Painful technique application options with the result	6.6
6	Throw application options with the result	8.6

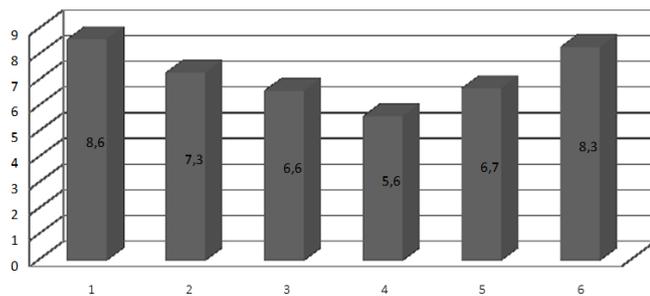
Note: for evaluation of attacking actions indicators the world Sambo Championship 2017 was selected. According to expert estimates, the results of the attacking actions on the point system amounted to the following values:



1. Attacking movements, a sharp change of a standing position or body press;
2. Carrying out effective action with comfortable body presses and with the opposite ones;
3. Actions in the standing position with feet encirclement, different-side grape vines with a loss of balance and throw;
4. Throwing the rival off balance, conducting backheels and ankle trips;
5. The application of painful techniques from the standing position and in the stalls;
6. Effective combinations of throws.

At the expert assessment of attacking actions according to the 10-point system, the investigated parameters were allocated as follows (Fig. 1).

The experts noted that wrestlers of high qualification the relationship between those technical-tactical actions that provide a positive result in a particular wrestling match. Based on the results of the competition analysis, the main technical and tactical combinations were identified: 1. combinations completed by backheel throw (front or side) prepared by the loss of balance, ankle trip, feet seizure; 2. combinations completed by pickup throw, feet seizure, loss of balance, backheels, grape vines, throws over the head; 3. combinations completed by grape vines throw (shank, foot, feet encirclement), loss of balance, feet seizure, ankle trips (front, rear, heel), backheels, grape vines, throw over the back; 4. combinations completed a throw over the back (hip), prepared by counter-attacking actions: loss of balance, ankle trips (front, rear, heel), backheels, grape vines; 5. combinations completed by ankle trip throw, removal of balance, grape vines (shin, foot, encirclement) throw over the back (hip), span throw; 6. combinations completed by feet seizure throw, removal of balance, seizure of feet (foot), backheel, ankle trip, grape vine, throw over the head, throw over the back (hip), span throw.



- 1 – Quick intelligence and deception activities;
- 2 – Comfortable body press options with the result;
- 3 – Comfortable grape vines options in the standing position with the result;
- 4 – Comfortable body press options with the result;
- 5 – Painful technique application options with the result;
- 6 – Throw application options with the result

**Fig. 1.** Average (in points) attack of Sambo wrestlers of high qualification in the conditions of the competition (expert evaluation)

Athletes who used these technical and tactical actions achieved the highest results at the end of the competition.

After analyzing the competition during the "Championship of the Far Eastern Federal District" we came to the conclusion that the athletes of the age category between 12-14 years in the performance of complicated combinations of throws, painful techniques had difficulties with the choice of comfortable body press, throws performance technique. Actions of counterattack, pressing the rival were insufficiently effective. In this regard, our methodology applied exercises and situational tasks, lead to the implementation of combinations of throws, loss of balance, a variety of backheels, ankle trips, as well as painful techniques. As the survey of experts showed, in improving the attacking actions of sambo wrestlers, special importance is given to technical and tactical training, ensuring the timeliness and effectiveness of the actions used.

Improvement of coordination abilities and technical and tactical actions with the use of game-playing exercises occurs at the planned increase in time of a fight, the area of interaction, the intensity of performance of exercises, the quantity of fights with various rivals. The use of competitive matches with the application of game tasks in various combinations of intensity and complexity of performance develop operational thinking of athletes, coordination abilities, speed and power endurance, competitive experience and strong-willed qualities.

The expected results of the game-playing exercise technique application by sambo wrestlers at the age of 12 to 14 years at the stage of sports specialization are as follows:

1. Increasing the level of technical and tactical actions and their use in competitive fights;
2. Development of coordination abilities by performing game-playing exercises;
3. Accumulation of experience in the use of training and attacking actions in various conditions of competitive fights.

Implementation of these techniques is aimed at improving the performance of the reaction of choice, reaction to a moving object, concentration and switching attention, coordination, balance of sambo wrestlers aged 12-14 years.

It is important to remember that the application of game-playing exercises in the training process is successful only after learning the specific techniques, throws, etc., that is why at the stage of sports specialization the game technique will positively influence the athletes who already have experience of executing various techniques.

A pedagogical experiment was conducted to test the effectiveness of the developed technique. It was attended by sambo wrestlers of the first sports category at the age of 14 to 16 years, who had the same experience, level of athletic training, weight categories from 56-68 kg. The control group was engaged according to the developed program for DYUSSH according to the Order of the Ministry of Sports of Russia dated 12.10.2015 N 932 "On the Approval of the Federal Standard of Sports Training in the Sambo Sport" [15]. Classes were held three times a week for 1.5 hours for two months, a total of 24 training sessions.

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The experimental group (eight people) was also engaged in the developed program, but with the application of the game-playing exercise technique. Game classes alternated among themselves. In the first week, the emphasis was placed on exercises related to technical and tactical actions. The second week of training was characterized by the increased intensity of coordination exercises. The main feature of the training process is the alternation of weeks with different degrees of load. Then control and competitive fights on which fixing of indicators was carried out were applied.

Our technique applied the following game-playing exercises (Tables II, III). The game-playing exercise technique application (coordination abilities):

1. Game-playing exercise "Hapsagay". This type of national wrestling was accepted by us in the form of a game-playing exercise aimed to increase the coordination abilities, "feeling of the carpet". The game was held at the beginning of the training, as a lead exercise for subsequent exercises. Playing time was 20 minutes.

2. Game-playing exercise "Combine a Throw". The game is aimed, in case of the attacking athlete, on the sense of control of the rival, at the ability to promptly change the situation in the course of the fight, in the case of the defender, it will help to learn how to counterattack the rival and if the rival had a throw, how to turn it to the lowest score. The game was used at the end of training to consolidate the material covered.

3. Game-playing exercise "Perfect Throw". With this game, athletes develop a sense of balance, control of the rival. The main task of the game is to teach athletes to finish the match with a perfect throw as often as possible. The game can be used both in the middle of training and at the end.

**Table II.** Game-playing exercises for the improvement of coordination

Game title	Description of game-playing exercises	Result evaluation system
"Combine a Throw"	Participants are divided into pairs randomly. An attacking athlete uses predetermined throws (wings under two feet, hip throw), which can be combined with each other, throws their rival to the mat. Each wrestler gets 10 attempts.	For each effectively carried out attack the attacker receives a point (on the five-point or ten-point system). The winner will be the player who scored the most points in 10 attempts.
"Hapsagay"	Players are divided into two teams, competitive fights are held, the task of each player is to get their rival to touch the mat with any part of the body, and this touch brings 1 point	A wrestler, who performed a productive action, is granted with a point, the winner is the team in which

	to the team. Time of fights varies from 1 to 3 minutes.	the amount of points for all the matches is higher.
"Perfect Throw"	Participants are divided into two teams, stand in two rows perpendicular to each other, directing from team A throws players from team B trying to perform a clean throw (through the hip), in turn, team B players during the flight phase, try to turn around and fall on the mat for the lowest score.	The winner is the team whose players have made more clean throws, the system of evaluation of the clean throw can be arbitrary or according to the rules of Sambo.

**Table III.** Game-playing for the improvement of technical and tactical activity

Game title	Description of game-playing exercises	Result evaluation system
"Before the First Throw"	Athletes are divided into two teams, in which we include wrestlers with different weight categories. Wrestlers line up on opposite sides of the wrestling mat. In the middle of the mat, the rivals of approximately the same weight category are invited. Then the fight starts and stops when one of the wrestlers performs the first throw.	After all the matches, the scores of all players of each team are summed up, the winner is the team with the most points.
"Favorite Technique"	All participants are divided into two teams, occupying the space of the mat, standing opposite each other. The rules are announced and the technical action is determined (front ankle trip). After the referee's signal, the wrestlers take a comfortable body press and begin to wrestle. The time of the match can vary from 3 to 5 minutes or until one of the wrestlers performs 10 technical actions.	The game is won by the team whose total score is greater. The evaluation is conducted according to the ten-point scale.

"Hip Throw"	All participants in the competition are divided into three teams. One of the participants performs the functions of the referee, the other two wrestlers do the throwing. The goal of the attacking athlete is in 10-20 attempts to perform as many highest score throws (according to the rules of Sambo) as possible. The task of the defending athlete is to resist, using the power of their own body. After that, the wrestler, who performed the duties of the referee, performs the throwing.	The winner is the athlete who manages to make more highest score throws.
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Game-playing exercise technique application (technical and tactical actions):

1. Game-playing exercise "Before the First Throw". The game is held in the form of training fights lasting from 1 to 3 minutes. Rivals tend to finish the match in less time by completing the throw. Actions of the game are aimed at the development of technical skills, their use in various tactical situations, tactical thinking, the ability to optimally adapt to the course of the fight and the actions of the rival.

2. Game-playing exercise "Favorite Technique". The game helps to improve the quality of the lead technical actions. It allows developing motor skills, which can later be brought to automatism, which in the future will allow one to perform the reception in any situation on the mat. We used the game at the end of the training process. Each participant was given 10 attempts.

3. Game-playing exercise "Hip Throw" This game contributes to the consolidation of technical activities and their exact implementation in the fight. The game can be used at the beginning of training to consolidate the previously covered material or at the end of the training process.

In the first month of the experiment, the task was exploratory in nature. First week: game-playing exercises for coordination abilities only; second week: game-playing exercises for technical and tactical training; third week: game-playing exercises alternated among themselves, two exercises to improve coordination abilities, one for technical and tactical training; fourth week: game-playing tasks also alternated among themselves, but this time it meant two tasks for technical and tactical training and one for improvement of coordination.

The second month was characterized by increased intensity of the game tasks, increased time of the matches, complication of the conditions of the fights. Game-playing exercises alternated at the discretion of the coach, depending on the direction of the training process.

After the experiment, we invited three experts to evaluate the results, each of which could award up to 10 points for a technically correct action (Tables IV-VI).

**Table IV.** Average indicators of technical-tactical and coordination readiness of wrestlers of the control group before and after the experiment (points)

Focus of training	M±m		Wp	P
	n=8 Before	n=8 After		
Coordination abilities	6.6±0.5	6.7±0.5	16	>0.05
Technical and tactical	5.5±05	6.6±05	18	>0.05

We have identified two groups of game-playing exercises for coordination abilities and technical execution of techniques and throws.

1. When evaluating the exercise "pressing of the rival; pushing out of balance", the effective removal of the rival outside of the mat (push), pulling, pushing out of balance (coordination) were considered;

2. When performing the technical action "pickup", the technically correct execution of the throw, the ability to counterattack were evaluated;

3. In the exercise "Combination and execution of throws", the timely performed throw, change of the throw based on the situation during the match (coordination) were evaluated;

4. When performing front ankle trip, the technically correctly performed action, the lead action and the throw were estimated;

5. In performing a clear throw in motion, the action was evaluated: the technically correctly performed action, the ability to perform the throw in motion (coordination).

6. While throwing with the opposite body presses, the hip throw was evaluated based on the ability of the athletes to perform a throw from different (uncomfortable) body presses the changing the position in the fight.

**Table V.** Average indicators of technical-tactical and coordination readiness of wrestlers of the experimental group before and after the experiment (points)

Focus of training	M±m		Wp	P
	n=8 Before	n=8 After		
Coordination abilities	7.1±0.68	8.5±0.12	2	<0.05
Technical and tactical	6.1±0.5	7.8±1.13	1	<0.05

After the experiment, we organized control fights, in which the participants of the control group showed less effectiveness than the athletes of the experimental group. Execution of the technical, tactical and coordination activities by the athletes of the experimental group was more accurate, fast, aimed at the early end of the match.

**Table VI. Results of application of game-playing exercises in the control and experimental group after the experiment (points)**

Focus of training	M±m		T	P
	Control n=8	Experimental n=8		
Coordination abilities	6.7±0.5	8.5±0.12	18	<0.05
Technical and tactical	6.6±0.5	7.8±1.13	17	<0.05

**IV. CONCLUSION**

Thus, we can say that the application of the developed game-playing exercise technique gives a positive result, and can be used in the training process of sambo wrestlers at the age of 12 to 14 years at the stage of sports specialization. The sets of game-playing exercises used in the technique, in our opinion, allowed improving the quality of technical and tactical actions, improved coordination abilities of the athletes. Performing combinations of attacking actions has become more accurate and fast, which indicates the development of operational thinking, the impact of situational tasks on the speed and accuracy of reactions, increasing the complexity and intensity of the consciousness and creativity of the participants of the experimental group.

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