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# Development of Coordination Abilities in the Process of Circle Training for 9-11 Years Figure Skaters

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**ABSTRACT**

*The presented article deals with the development of coordination abilities of figure skaters. The proposed circuit training has shown its effectiveness and can be used in the training of figure skaters.*

**Relevance.** Figure skating belongs to complex coordination sports, and coordination is the leading quality of figure skaters. Currently, figure skating places high demands on the performance of complex multi-turn jumps.

For the stable performance of complex elements, a high level of development of coordination abilities and vestibular stability is required. The leading teams of the World have long been using rotational platforms for training vestibular stability, signal vests for working out the accuracy of the skater's position in various phases of jumps, as well as numerous insurance systems and lounges. Figure skating coaches in Uzbekistan do not yet have access to such simulators, due to the lack of experience of coaches and the high cost of simulators. Coaches of the republic strive to ensure the training of figure skaters and achieve the required level of physical fitness with limited means.

**The purpose of the study** is to experimentally substantiate the effectiveness of the methodology for developing the coordination abilities of figure skaters aged 9–11 years using the developed exercises for circuit training.

**Methods and organization of the study.**

The following methods were used in the study: analysis of literary sources; pedagogical observation; pedagogical experiment, testing and methods of mathematical statistics.

The study involved 30 figure skaters 9-11 years old. Before the start of the experiment, the subjects were divided into two equal (15 people each) groups: experimental (EG) and control (CG).

The study was conducted on the basis of the RSVSM in winter and complex technical sports in Tashkent, the department of figure skating. In the control group, training sessions were carried out according to the standard program of the RSVSM. In the experimental group, the classes were supplemented with sets of exercises of circular training.

The analysis of literary data and pedagogical observations of the training activity of figure skaters made it possible to develop a complex of special physical exercises for the development of coordination abilities of figure skaters, taking into account the specifics of the sport. A set of exercises was used in off-ice training in the form of a circuit training, during the main time of the training session.

The circuit training consisted of the following exercises by station:

1 station - exercises using the step platform: (jumping exercises on the step with various variations of jumps).

2 station- exercises to imitate rotations on a spinner (Up spin, seat spin and other options).

3rd station - jumping over a half-folded rope in a semi-squat.

4 station - tours in different directions in turn.

Station 5 - static exercises in maintaining balance (swallow on one leg).

6th station - throwing the ball up overhead while simultaneously turning and catching the ball. Execution in different directions.

7 station - performing three somersaults forward and backward.

8 station - run with an acceleration of 20 meters.

9 station - jump with a turn of 45 degrees to the landing.

10 station - jumping and jumping on the gymnastic bench.

Circular training was carried out according to the method of interval exercise with rest breaks between stations of 30 seconds. The distance between stations was overcome by light running.

**Results of the study and their discussion.**

At the beginning and at the end of the study, tests were conducted to determine the level of development of coordination abilities of figure skaters aged 9-11. (Table 1) Testing at the initial stage of the experiment showed that both groups of figure skaters are at the same level of development of physical abilities.

Table 1

The results of studies of the coordination abilities of figure skaters aged 9-11

| Tests | control group | | experimental group | |
|---|---|---|---|---|
| | Before experiment X±m | After the experiment X±m | Before experiment X±m | After the experiment X±m |
| Romberg test (s.) | 12,3±0,9 | 13,2±1,05 | 12,5±1,08 | 14,5±1,1 |
| Turns on the gymnastic bench (number of times) | 8,1 ±0,8 | 9,2±1,03 | 8,2±0,9 | 11,1±0,9 |

| | | | | |
|---|---|---|---|---|
| Shuttle run 3x10 (s.) | 9,9±0,3 | 9,8±0,5 | 9,9±0,4 | 9,6±0,2 |
| Jumping rope on two legs in 1 minute. (number of times) | 91,8±0,5 | 100,4±0,7 | 91,9±0,2 | 120,1±0,6 |
| Jumping rope on one leg for 1min. (number of times) | 72,1±0,3 | 80,2±0,7 | 72,3±0,8 | 106,4±0,2 |
| Test Yarotsky (s.) | 9,28±0,1 | 9,3±0,8 | 9,26±0,7 | 10,7±0,2 |
| Stepping over a gymnastic stick (number of times) | 16,1±0,5 | 16,3±0,3 | 16,4±0,4 | 18,9±0,2 |

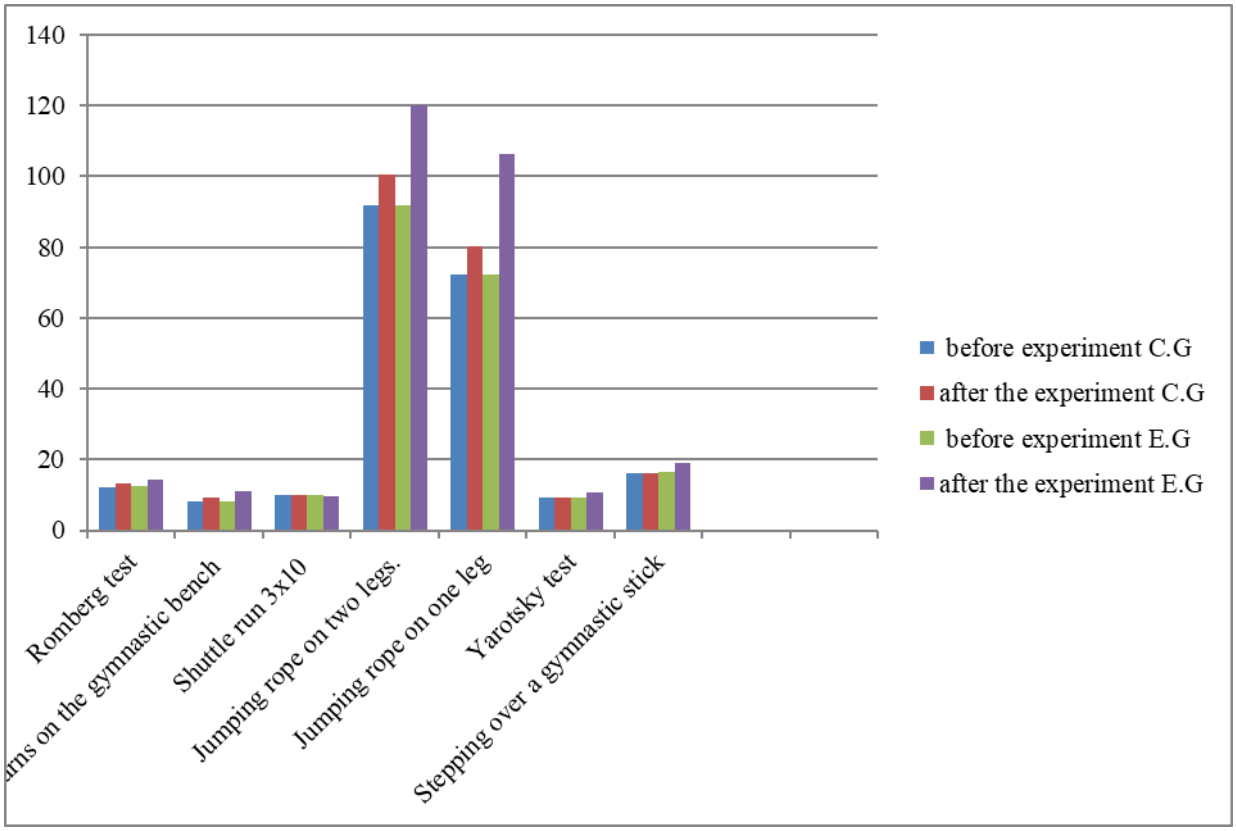


Fig.1 Growth of indicators of coordination abilities of figure skaters 9-12 years before and after the experiment in the control and experimental groups

The results of the study showed a quantitative increase in the results of testing figure skaters. Thus, the percentage increase in the Romberg test in K.G was 7.3%, and in E.G 16%, the percentage increase in the number of jumps on a rope on two legs in 1 minute of E.G increased by 30.6%, while in K.G - by 9.3%.

A comparative analysis of the results of the test "Turns on the gymnastic bench" showed that the difference in the percentage of the two groups (K.G. and E.G.) was 21.8%; in the test “Jumping rope on one leg”, the growth of K.G. was 11.2%, and E.G. 47.1%; amounted to 15.2%, and in K.G. only 1.2%.

Comparative evaluation of the results of the test "Shuttle run 3x10 m." after applying the experimental methodology in the experimental process of figure skaters 9-12 years old, positive dynamics is observed both in E.G. and in K.G. The time to overcome the distance in K.G was controlled by 1%, and in E.G by 3.1%.

**Conclusions:** The indicators in all tests of the experimental group are higher compared to the control group, which focuses on the fact that the use of the developed circular training exercises develops the coordination abilities of the skaters, increases their level of development and indicates the effectiveness of their use.

The carried-out researches have allowed to draw a conclusion about the need to use special physical exercises in circuit training for the development of coordination abilities of figure skaters. Based on this, the developed circular training can be recommended to figure skating coaches for use in the educational and training process.

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