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GENERALIZATION OF EXPERIENCE IN THE QUESTIONS OF IMPROVING THE THROWING ELEMENTS WITH THE HOOP OF YOUNG ATHLETES IN RHYTHMIC GYMNASTICS

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Purpose: to summarize coaching experience in improving throwing elements with a hoop for gymnasts 7-8 years old.

Material and methods: the study involved one hundred twenty athletes 7-8 years old, training at the Rhythmic Gymnastics School of the city of Kharkov and the city of Szczecin. The level of possession of the throwing movements of the hoop was determined using characteristic motor tests and application video recordings. The assessment of the competitive exercise was carried out by the method expert assessments. The experts were coaches with a referee category in rhythmic gymnastics. The result was determined in accordance with the rules of the competition. The maximum score is 10.0 points.

Results: the level of mastery of the basic throwing elements with a hoop was revealed for gymnasts of 7-8 years old, the method of error correction was substantiated. The gymnasts received the lowest marks in the following tests: "Throwing a hoop lying on the floor with a swing of the foot with rotation around

the diametrical axis of the apparatus on a sideways turnover, catching a jump through the hoop (\overline{X} - 6,2 points); "Throw from a spin in the lateral plane with the left hand" (\overline{X} -7,0 points); "Throw with a swing of a horizontally located hoop, catching in the passage in a sideways flip" (\overline{X} -7,5 points).

Conclusions: the lowest results were obtained when performing the elements of "difficulties", "risks", "skill" and when performing throws with the left hand. The result for performing a competitive exercise with a hoop is 7,2 points. The repeated results of throwing actions with a hoop increased from 7% to 31% and ranged from 8,1 points to 9,5 points. For the performance of a competitive exercise with a hoop, the result increased by 18% and is 8,5 points.

Keywords: hoop, gymnastics, artistic, throws, experience, coach, correction.

Introduction

Rhythmic gymnastics is a complex coordination sport, a competitive program in which gymnasts require a wide range of skills and abilities. It is well known that the distinguishing feature of rhythmic gymnastics as a sport is the performance of exercises with objects. Gymnasts in competitive compositions, in addition to owning their bodies, simultaneously demonstrate a virtuoso technique of performing elements with a ball, rope, ribbon, clubs and hoop [4; 6; 11; 12]. The high complexity of competitive exercises in rhythmic gymnastics determines the search for effective pedagogical approaches in the process of improving the technical training of athletes, including exercises with objects [5; 8, 16]. To achieve mastery, athletes need to learn to perform throws, bounces, reversals, rotations, figure movements and various manipulations with objects. Impressive in performance and difficult to learn are throwing movements, which are performed by all subjects [7; 13]. Assimilation of exercises with subjects young gymnasts begin in the first year of study.

At the age of 7-8 years, young gymnasts add more complex elements to the basic skills that have already been studied [4; 9]. At this stage of preparation, it is important to correct inaccuracies in the acquired basic skills, to prevent possible

mistakes in the development of complex elements, one of which is throwing movements with the hoop.

Connection of research with scientific, practical tasks, plans, programs. The study was conducted in accordance with the initiative topic of research of the Department of Gymnastics, Dance and Choreography KHSAFC: "Theoretical and methodological foundations of development of system-forming components of physical culture (sports, fitness and recreation) for 2020-2025, state registration number 0120U101215.

The purpose of the study: to summarize the coaching experience in improving the throwing elements with a hoop of gymnasts 7-8 years.

The objectives of the study: 1) to identify the level of mastery of throwing elements with a hoop of gymnasts 7-8 years; 2) to develop a method of correction of errors of throwing movements with a hoop

Material and Methods of research

One hundred and twenty athletes aged 7-8, who train at the CYSS in rhythmic gymnastics in Kharkov and Szczecin, took part in the study. The level of mastery of throwing movements of the hoop was determined using characteristic motor tests using video. The evaluation of the competitive exercise was carried out by the method of expert evaluations, the experts were coaches who had a judge's category in rhythmic gymnastics. The maximum score for each test and competitive exercise – 10,0 points, discounts were made in accordance with the requirements for the technique of performing exercises in accordance with the rules of competitions in sports [11; 12; 13].

Results of the research

Gymnasts of the studied group have previously mastered some basic skills of performing elements with a hoop. Learning to throw with a hoop began while learning the basic elements of objects. Currently, young athletes are learning more complex elements, which give the opportunity to get extra points for "difficulties", "risks" and "skill".

To determine the level of readiness of gymnasts, tests with different types of throwing elements with a hoop were identified, which often make up the content of competitive programs and are available for development at this age [2; 3; 12; 13].

The gymnasts were offered eight test tasks in which they performed high hoop throws in different planes, without rotation and with rotation, throwing and catching without visual control and without the help of hands. The first two throws over himself from the rotation in the lateral plane [2; 7; 8; 13], gymnasts performed by rotating the hoop in front on the outward brush, hand forward. In the next two tests, these throws were performed without visual control.

In the next, fifth test exercise, the athletes performed a forward-upward throw of the vertically placed hoop with a wave of the hand, performing a "shene" under the object and catching in a free grip on the lower edge of the hoop in a sideways turn.

The sixth test exercise was throwing a hoop over yourself with rotation around a diametrically horizontal axis and catching without the help of hands in the passage into the hoop. From the starting position - the hoop forward horizontally with two hands from below, the athletes swung a high throw of the hoop with a rotation towards them. Fishing was carried out on the body of the athlete without the help of hands, in the passage into the hoop with his feet in the seat at an angle on the floor, followed by a grip from above with both hands in a roll back.

The seventh exercise was throwing a horizontally placed hoop back and forth with a swing of two hands, "shene" and fishing without the help of hands in the passage into the hoop in a sideways turn. From the starting position - the hoop forward horizontally by grasping with both hands from below: the hoop to the sideto the bottom, swing forward-upward with the subsequent performance of "shene" under the object. Fishing was carried out on the body of the athlete without the help of hands in the passage into the hoop by turning sideways.

Eighth exercise: on the side turn throw a hoop lying on the floor with a swing of the foot with a rotation around the diametrical axis of the object, catching his hands in a jump through the hoop. In the initial position, the hoop rests on the

support leg, the opposite free side of the hoop on the floor. The gymnast steps over the hoop and when performing a coup with the swing of the supporting leg makes a throw of the hoop with rotation around the axis in the plane of the object, fishing is performed with the hands in a jump through the hoop.

Athletes were given three attempts to perform each test, and the best result was recorded. The mean values in the group were calculated. Gymnasts also performed a competitive program with a hoop for evaluation (Table 1).

Table 1
Test results of throwing actions with a hoop (max - 10 points, n-120)

Tests	Average	Standard	Coefficient
	value \overline{X}	deviation	of variation
		σ	V
1. Throw with rotation in the lateral plane with the	8,8	1,17	13
right hand			
2. Throw with rotation in the lateral plane with the	7,8	1,42	18
left hand			
3. Throw with the right hand with eyes closed,	8,6	1,24	14
fishing with eyes open			
4. Throw with the left hand with eyes closed, fishing	7,0	1,83	26
with eyes open			
5. Throw in the side plane, "shene", catching in a	8,2	1,12	14
sideways coup			
6. Throwing a horizontally placed hoop with rotation	7,9	2,42	31
to itself, catching without the help of hands in the			
passage into the hoop with his feet in a roll back			
7. Throwing a horizontally located hoop, "shene",	7,5	1,84	25
fishing without the help of hands in the passage into			
the hoop by turning sideways			
8. Throwing a hoop lying on the floor with a swing	6,2	1,8	29
of the foot with a rotation on the coup sideways,			
catching his hands in a jump through the hoop			
9. Competitive composition with a hoop	7,2	1,86	26

The test results revealed that the gymnasts made mistakes when performing the exercises. When developing a method of correction of throwing movements with a hoop, attention was paid to error prevention, correction and improvement of exercise techniques.

In throws with rotation in the lateral plane with the right and left hand, it should be noted that the performance of this exercise with the right hand was much

better (8,8 points and 8,6 points) than the left (7,8 points and 7,0 points) even when performing a throw with the right hand without visual control. The method of correction of throwing movements with a hoop necessarily provided for the symmetrical performance of all tasks, as in accordance with the requirements of the sport gymnasts must demonstrate the ability to perform exercises with both hands. In general, in these throws gymnasts often made the following mistakes: inappropriate hoop plane in flight, insufficient height of the object, gymnasts moved from place to place before fishing. The following exercises were included in the method of error correction: 1) simulation of throwing and catching without a subject; 2) performing pre-throw actions with the rotation of the hoop on the palm of the hand; 3) throw the hoop at different heights.

The results of the throw in the side plane, "shene", catching in a sideways turn (-8,2 points; V-14%) indicate the real possibility of mastering the technique of this exercise gymnasts 7-8 years. However, some athletes made the following mistakes: a pause between fishing and a sideways turn, extra steps before fishing, insufficient height of the object, incorrect plane of the hoop in flight, catching the hoop with both hands. The following exercises were included in the method of error correction: 1) simulation of throwing and catching without a subject; 2) throw forward-up, two steps, catching in a turn sideways; 3) catching in a sideways turn after a low throw.

When performing a throw of a horizontally located hoop with rotation to itself, catching without the help of hands in the passage in the hoop with his feet back (-7,9 points; V-31%) gymnasts made the following mistakes: incorrect axis of rotation of the hoop, helping hands when catching, steps before fishing. The following exercises were included in the method of error correction: 1) simulation of throwing and catching without an object; 2) throws of a horizontally located hoop with rotation to itself; 3) fishing in the aisle in the roll back after a low throw.

Performing a throw of a horizontally located hoop, "shene", fishing without the help of hands in the passage into the hoop by turning the side of the young gymnasts is difficult (-7.5 points; V-25%). When performing this exercise, the

athletes made the following mistakes: incorrect plane of the hoop in flight, insufficient throw height, a pause between fishing and performing a sideways coup. To correct errors in the method were included the following exercises: 1) simulation of throwing and catching without a subject; 2) swings with a hoop with the performance of pre-throw actions; 3) throw swing forward and up without performing "shene" and catching in a coup sideways; 4) fishing in the aisle in a sideways turn after a low throw.

The gymnast received the lowest marks for performing a leg throw with rotation around the horizontally located axis of the object on the sideways turn, catching a jump through the hoop (- 6.2 points; V-29%). The gymnasts made the following mistakes when performing the test: the hoop slipped off the leg when performing a sideways throw, the wrong plane of the object in flight, performing a throw with excessive intensity, a large distance between the throw and catching the object. To correct errors, the following exercises were included in the technique: 1) swing a leg with a hoop on the leg from the starting position as when throwing the hoop on the coup sideways; 2) throw a foot on the coup side with a medium height with an emphasis on maintaining the correct plane of the object; 3) ideomotor performance of a holistic exercise.

To correct errors when performing basic elements with a hoop and increase the effectiveness of throws gymnasts performed a variety of holds, rotations, rolls, manipulations, swings and directly different throws with a hoop [1; 2; 3; 13].

Competitive composition with a hoop was the last test, during which it was determined how effectively the above exercises gymnasts perform in their compositions. The average value - 7.2 points, the coefficient of variation - 26% indicates the need to improve the performance of the throwing elements of "difficulties" and "risks".

During the experiment, during the warm-up, gymnasts, under the guidance of the coach, performed a warm-up at an intense, fast pace, thereby reducing it. As a result, 15 minutes were released and the girls performed some additional throws, which amounted to 45 minutes of work per week. The technique was applied for

two months (360 minutes, or 6 hours). During the training with the subject, more attention was paid to those exercises that were the worst evaluated in the test. The gymnasts were explained the key moments of the technique of performing each throwing movement. With the help of video and clearly compared the correct and incorrect performance of exercises. Proper performance was fixed by a large number of repetitions with mandatory conscious control of all parts of the technique and with subsequent control of the exercise. If necessary, the error correction procedure was repeated in the following trainings. Performing exercises before the competitive composition allowed to better prepare gymnasts to work with the subject, they made less losses and technical errors.

After applying the technique, repeated tests were performed, which revealed that the gymnasts significantly increased their level of mastery of the hoop. Repeated results of throwing actions with a hoop make from 8,1 points to 9,2 points.

The best improvements were determined in the test "throwing a foot with a rotation on the coup sideways, catching a jump through the hoop." During the first testing, gymnasts usually tried this exercise, so the result was low and heterogeneous in the group. During the implementation of the method, much attention was paid to eliminating errors and improving the technique of this throw. After applying the technique, the athletes began to perform the exercise with the best technique: without losing the object, with sufficient height and with the correct plane of the object in flight, with good fishing. In re-testing, most gymnasts performed this exercise quite confidently, the average score in the group was 8.1 points, the coefficient of variation decreased from 30% to 15% (fig. 1).

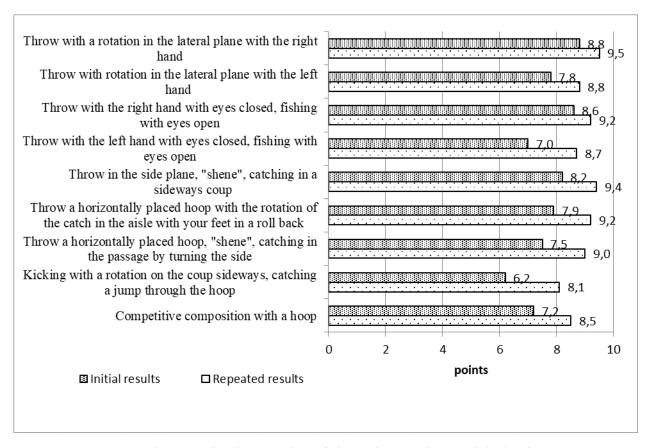


Fig. 1. Changes in the results of throwing actions with the hoop

In the following, problematic for gymnasts, tests: throws with the left hand in the lateral plane with rotation, the result improved from 7,0 points to 8,7 points and from 7,8 points to 8,8 points. Gymnasts after applying the technique began to perform the exercise with a sufficient height of the subject and without unnecessary steps.

In the next, problematic for gymnasts, test "throw a swing of a horizontally located hoop without rotation," shene ", fishing in the aisle in the turn sideways" the result increased from 7,5 points to 9,0 points, which corresponds to an improvement of 20%. Gymnasts after applying the technique began to perform the exercise more confidently and with minimal errors.

The smallest improvement (7% and 8%) was found in throws with rotation in the lateral plane with the right hand. This is due to the fact that in the initial testing during this exercise, the athletes showed a high result, so after applying the method, the athletes increased their level, but with a slight increase.

When performing a competitive composition with a hoop, the result increased by 18%, which confirms the impact of the developed technique on improving the technique of performing elements of "difficulties", "risks", "skill" in gymnasts 7-8 years.

Conclusions / Discussion

The conducted researches confirmed the information of V. Lenyshyn., V. Sosina, G.A. Poplar [6; 12] that one of the features of the development of modern rhythmic gymnastics is the steady growth of technical skills of gymnasts and the difficulties of their competitive programs. At the stage of preliminary basic training, promising ways to improve the result, experts primarily associate with learning elements of increased difficulty, including throwing elements with a hoop [1; 15]. The study confirms the data of Andreieva N, Zhyrnov O. [14], A. Mullagildina, I. Krasova [16], that at this stage of preparation it is important to correct errors in the technique of basic elements and prevent them when learning complex elements, one of which is throwing. movements with a hoop.

Analysis of the results of tests that revealed the level of mastery of throwing movements with a hoop gymnasts 7-8 years, it was determined that at this stage of training, young athletes make mistakes when performing throwing elements with a hoop. The young athletes showed the lowest results when performing elements of "difficulties", "risks", "skill" (-6.2 points; - 7.5 points) and performing throws with the left hand (\bar{X} -7.0 points; - \bar{X} - 7.8 points). The average result for performing a competitive composition with a hoop - 7.2 points.

We also agree with the statement of experts [1; 6; 7; 10] that at present the volume of throwing elements in competitive combinations of gymnasts has considerably increased, their structural complexity has increased, the amplitude of performance has increased, fishing conditions have become more complicated. This necessitates the search for new ways and opportunities that can better and faster teach gymnasts to control their movements. Taking into account the results of testing athletes, a method of correction of throwing movements with a hoop was developed, as a result of which, athletes began to perform throwing elements at the

best technical level with minimal losses. The result for performing a competitive composition with a hoop improved to 8.5 points.

Confirmed conclusions T.S. Lysytska, L.A. Novikova [7], A.Ya. Mullagildina, K.O. Shevchenko [9], B. R. Agostini., L.A. Novikova [14] and other scientists that the introduction of methods of improving throwing actions in subjects in the educational and training process is one of the most promising areas of technical training of athletes in rhythmic gymnastics.

Prospects for further research in this area are to further determine the methodological approaches to the correction of throwing actions by the subjects of athletes in rhythmic gymnastics.

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References

- 1. Agostini, B. R., Novikova, L. A. (2014), «Reliability of execution of throwing elements without visual control in rhythmic gymnastics», Fizicheskaya kultura: vospitanie, obrazovanie, trenirovka: Detskiy trener: zhurnal v zhurnale, № 5, pp. 45-46 (in Russ.)
- 2. Andrieieva, R. I. (2011), Tekhnolohiia navchannia tekhniky vprav z obruchem na osnovi spetsialnoi fizychnoi pidhotovky yunykh himnastok: avtoref. dys. na zdobuttia nauk. stupenia kand. nauk z fiz. vykhovannia ta sportu: spets. 24.00.01 / Kharkiv, 20 p. (in Ukr.).
- 3. Andreeva, N. O. (2011), «Improving the technique of teaching the technique of throws and catching gymnastic objects at the stage of specialized basic training», Fizicheskoe vospitanie studentov tvorcheskih spetsialnostey, № 4, pp. 3-5 (in Russ.)
- 4. Bilokopytova, Zh. A., Nesterova, T. V, Deriuhina, A. M, Bezsonova, V. A. (1999), Khudozhnia himnastyka. Navch. prohr. dlia dytiacho-yunatskykh

- sportyvnykh shkil, spetsializovanykh dytiacho-yunatskykh shkil olimpiiskoho rezervu, shkil vyshchoi sportyvnoi maisternosti. Kyiv, 115 p. (in Ukr.).
- 5. Kraeva, E. S., Stepanova, I. A. (2017), "The relationship between the quality of throws fulfillment in group exercises of rhythmic gymnastics with the special motor abilities of female athletes", Uchenyie zapiski universiteta im. P.F. Lesgafta, №1(143), pp. 95-98 (in Russ.)
- 6. Lenyshyn, V., Sosina, V. (2014), "Features of judging group and individual exercises in rhythmic gymnastics", Sportyvna nauka Ukrainy, №5 (63), pp. 41-46. (in Ukr.).
- 7. Lisitskaya, T. S., Novikova, L. A. (2017), "Teaching complex throwing elements in rhythmic gymnastics", Fundamentalnyie i prikladnyie issledovaniya fizicheskoy kulturyi, sporta: traditsii i innovatsii: materialyi I Vserossiyskoy nauchno-prakticheskoy konferentsii. Moskva, pp. 485-493. (in Russ.)
- 8. Markova, O. V., Vynohradova, L. S. (2018), "Biomechanical characteristics of elements of sports exercises technique in rhythmic gymnastics", Fizychne vykhovannia i sport v navchalnykh zakladakh Ukrainy na suchasnomu etapi: stan, napriamky ta perspektyvy rozvytku: zb. nauk. prats KhKhIV Vseukrainskoi naukovo-praktychnoi konferentsii Tsentraln. ukr. derzh. ped. un-tu im. V. Vynnychenka / TsDPU im. V. Vynnychenka. Kropyvnytskyi; Kharkiv: FOP Ozerov H. V. Vyp. 24, pp. 261-265. (in Ukr.).
- 9. Mullahildina, A. Ya., Shevchenko, K. O. (2014), "Correction of throwing ball movements in athletes 7-9 years in rhythmic gymnastics", Fizychna kultura, sport ta zdorovia: materialy 14-y Mizhnarodnii naukovo-praktychnoi konferentsii, KhDAFK, pp. 104-108 (in Ukr.).
- 10. Mullahildina, A. Ya., Krasova I. V. (2018), "Technical training of athletes 10-11 years in rhythmic gymnastics in exercises with clubs", Naukovyi chasopys Natsionalnoho pedahohichnoho universytetu imeni MP Drahomanova. Seriia 15: Naukovo-pedahohichni problemy fizychnoi kultury (fizychna kultura i sport), №. 4, pp. 114-118 (in Ukr.).
- 11. Tekhnichnyi komitet z khudozhnoi himnastyky: FIG (2017), Pravyla zmahan z

khudozhnoi himnastky (2017-2020).URL: http://vfrg.ru/upload/iblock/dbf/dbf6d760bc71ff64006d3431e5734407.pdf (in

Ukr.).

12. Topol, H. A. (2017), Kompleksna otsinka pidhotovlenosti kvalifikovanykh sportsmenok u khudozhnii himnastytsi [Comprehensive assessment of qualified training female athletes in rhythmic gymnastics:]: avtoref. dys.. kand. nauk z fiz. vykhovannia i sportu: spets. 24.00.01" Olimpiiskyi ta profesiinyi sport" Nats. un-t

fiz. vykhovannia i sportu Ukrainy. Kyiv, 24 p. (in Ukr.).

13. Hudozhestvennaya gimnastika (2003): uchebnik dlya trenerov, prepodavateley i stud. fiz. kulturyi / Vseros. federatsiya hudozhestven. gimnastiki; SPbGAFK im.

P.F. Lesgafta; pod red. L.A. Karpenko. M., 384 p. (in Ukr.).

14. Agostini, B. R., Novikova, L. A. (2014), "Identification of factors affecting the implementation if elements of release with no eye contact in rhythmic in athletes oft he city of fortress", Journal of international federation of physical education,

№ 84, pp. 128-130 (in Eng.)

15. Andreieva, N, Zhyrnov, O. (2019), "Features of the kinematic structure of throwing technique and catching ball in artistic gymnastics at the stage of preliminary basic training", Theory and Methods of Physical education and sports, №3, pp. 70-73 DOI:10.32652/tmfvs.2019.3.70-73 (in Eng.)

16. Mullagildina, A., Krasova, I. (2019), "Improving the technical training of athletes 10-11 years old in rhythmic gymnastics in exercises with clubs",

Slobozhanskyi herald of science and sport, №. 1 (69), pp. 19-24. (in Eng.)

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